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THE INTEGRATION ROLE OF EUROPEAN DEFENSE PROCUREMENT IN ACHIEVING A MORE COMPETITIVE AND STRONGER EUROPEAN DEFENSE EQUIPMENT MARKET

by

Kiril O. Angelov

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Thesis Advisor: Max Kidalov
Second Reader: Robert Looney

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The creation of a strong and competitive European defense equipment market out of the 28 fragmented markets of the EU member states remains an important subject of discussion in transatlantic relations today. The increasing defense capability gap between Europe and the United States continues to raise many questions, including the issue of European dependency on U.S. defense capabilities and technologies. At the same time, the EU's decreasing military spending, in particular in the defense procurement and research and development areas, has been negatively affecting defense companies in Europe. To support the development of a competitive, competent, and capability-driven defense industry, the EU member states agreed to focus on the institutionalization of the European defense equipment market. The main focus of this study is how this institutionalization process contributes to the fostering of the defense market integration. Using qualitative analysis, I argue that the new regulation contributes little to the integration of the different national defense industries in Europe. Despite the publically expressed consensus for more collaboration in defense procurement, most member states continue to look for nationally driven decisions, rather than for a functioning European approach.

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THE INTEGRATION ROLE OF EUROPEAN DEFENSE PROCUREMENT IN ACHIEVING A MORE COMPETITIVE AND STRONGER EUROPEAN DEFENSE EQUIPMENT MARKET

Kiril O. Angelov
Civilian, Ministry of Defense of the Republic of Bulgaria
B.A., University for National and World Economy, 2004
M.A., Sofia University "St. Kliment Ohridski," 2011

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June 2015

Author: Kiril O. Angelov

Approved by: Max Kidalov
Thesis Advisor

Robert Looney
Second Reader

William Gates
Dean, Graduate School of Business and Public Policy

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LIST OF ACRONYMS AND ABBREVIATIONS

COPS	Political and Security Committee
CDM	Council of Defence Ministers
DASA	Deutsche Aerospace AG
DCR	Domestic content demand
DOD	US Department of Defense
DPD	Defence Procurement Directive 2009/81/EC
DTL	Direct Technology Licensing
EADS	European Aeronautic Defence and Space Company
ECJ	European Court of Justice
EC	European Commission/ Commission of European Communities
EDA	European Defence Agency
EDEM	European Defense Equipment Market
EDTIB	European Defense Technological and Industrial Base
EP	European Parliament
ESDP/ CFDP	European/Common Security and Defence Policy
ERRF	European Rapid Reaction Force
EU	European Union
EUMC	EU Military Committee
EUMS	EU Military Staff
FMS	Foreign Military Sales
GDP	Gross Domestic Product
GPS	Global Positioning System
G-to-G	Government-to-Government
IPR	Intellectual Property Rights
LoI	Letter of Intent Agreement
M&A	Mergers and Acquisitions
MOD	Ministry of Defense
NATO	North Atlantic Treaty Organization
NCW	Network-Centric Warfare
NEC	Network-Enabled Capabilities

NSPA	NATO Support and Procurement Agency
NSPO	NATO Support and Procurement Organization
NTB	Non-tariff barriers
OCCAR	Organisation for Joint Armament Cooperation/ Organisation Conjointe de Cooperation en matiere d'ARmement
OJEU	Official Journal of the European Union
pMS	EDA participating member states
PPD	Public Procurement Directive 2004/18/EC
ROI	Return on Investment
R&D	Research and Development
R&T	Research and Technology
SIPRI	Stockholm International Peace Research Institute
SoI	Security of Information
SoS	Security of Supply
SSM	Second Sourcing Method
TEC	Treaty establishing the European Community
TED	Tenders Electronic Daily
TFEU	Treaty on the Functioning of the European Union
TPP	Total Package Procurement
UK	United Kingdom
USA	United States of America
WEAG	Western European Armaments Group
WEAO	Western European Armaments Organization

EXECUTIVE SUMMARY

After the end of the Cold War, both the European Union countries and the United States faced the need for the significant reduction and reform of their armed forces. Unlike the U.S. revolutionary approach, Europe started its defense transformation much more cautiously and at a slower pace. This affected the development of the defense industries from both side of the Atlantic. While the U.S. defense companies started a tremendous consolidation process in the early 1990s, the European arms producers lagged behind their American competitors. It was not until the early 2000s that the EU started worrying about its increasing dependence on U.S. high-tech defense technologies and systems. The following debate produced the commitment for the institutionalization of a stronger and more competitive European defense equipment market. All EU countries agreed that there was a pressing need for a new common legal framework that would ensure the level playing field of the defense market. As a result, the European institutions together with the member states produced a new defense procurement directive (hereinafter referred to as “DPD” or “the directive”) that introduced common procurement rules and procedures for the entire Union. However, important contract types that remained out of the scope of the defense procurement directive thus excluded a significant amount from the procurement spending from the new European Defense Equipment Market’s (EDEM’s) regulations.

This study assesses precisely the impact of the European defense procurement initiatives on achieving a stronger and more competitive European defense equipment market. This research explores the issue of whether the new European defense procurement legislation is enough to foster the armaments collaboration between the EU member states and the consolidation of the European defense industry. The observations show that the consolidation of the European defense equipment demand is still developing too slowly because most EU member states continue to make decisions based predominantly on their national considerations. In turn, the European defense companies do not have the incentive to compete within the Union. Instead, they are looking for ways

to increase their exports to the new emerging markets outside Europe. This became increasingly obvious immediately after the financial crisis in 2008.

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I. INTRODUCTION

During the last decade, European integration has increased to encompass security-related policies, including the defense industrial policy. Unlike the existing consensus that a stronger and less fragmented European defense industry is needed to sustain and enhance the common military capabilities and autonomous actions, there has been different reasoning on how this goal should be achieved or which model for state–industry relations the market should rest on.

The intergovernmental approach has resulted in the most significant armaments collaborative programs among European Union (EU) member states so far. While keeping their sovereignty in this strategic sector of the economy, some European countries have successfully developed and procured together advanced military platforms and systems in the past decade. However, this approach was highly criticized in that it proved to be economically inefficient and included only some European countries.

On the other side of the spectrum, the European Commission (EC) is striving for the creation of a level playing field in the defense equipment market, which would give the European companies equal access to all national markets of the member states. The Commission claims that only a competitive approach can ensure economic efficiency and eliminate unnecessary duplication of efforts and taxpayers' money. To introduce this EU-wide approach, the Commission has focused its efforts on the creation of common rules for defense procurement. As a result, two new directives, one on defense procurement, 2009/81, and the other on the intracommunity transfers of defense-related goods and services, 2009/43, have been passed by the European Parliament (EP) and the Council. The main benefit of these directives, according to the EC, is that they provide an essential framework for the establishment of a more competitive and stronger defense industry and improve the functioning of the internal market for defense products through (a) providing an eligible common regulation taking into account the specifics of the defense market, and (b) simplifying and unifying the procedures related to the intracommunity transfers of defense products.

However, the actual rules that govern any defense equipment market on both the demand and supply sides can hardly be subjected to the free-market principles. Some of the major forces that drive this type of market are not even economic, but rather political and geostrategic. Moreover, there are analysts who think that competition in the defense industry represents an economic paradox. If that is so, most recent efforts and initiatives of the EC would look worthless, or to say the least, not in the right direction, which means they do not address the real problems of the European defense industry and market.

The main purpose of the author is to assess the impact of the European defense procurement initiatives on achieving a stronger and more competitive European defense equipment market (EDEM). In a narrower perspective, the assessment focuses on whether the new European legislation and other political initiatives in the area are fostering the armaments collaboration between the EU member states and the consolidation of the European defense industry.

Chapter II of the thesis explores the characteristics of the post-Cold War European defense equipment supply and demand and in particular the processes that drove both defense spending and the restructuring of the defense industry in Europe during the 1990s. The respective comparison between the EU and the United States response to the geopolitical challenges after the end of the Cold War is an important element of the analysis. The latter seeks to provide an explanation for why Europe has fallen so far behind its closest ally in terms of military capabilities and technology and why the defense companies on both sides of the Atlantic have achieved different levels of economic success.

Chapter III includes the theoretical framework for explaining the competitive market and free trade, market distortions, tariff and non-tariff barriers in a broader sense, economic growth, and international arms trade and competition in a narrower perspective. Based on economic theory, the researcher tries to give in Chapter IV a holistic account, or a complex picture of the emerging EDEM. This requires reporting of multiple perspectives, including a legal interpretation of defense procurement directive and explanation of the member states' resistance to yield their sovereignty to the EU

bodies because of political and security considerations when dealing with security and defense matters.

Finally, Chapter V explores the basic trends in the European defense equipment market. The analysis here is focused on the demand side of the market, which includes mainly the EU defense expenditure and in particular the defense procurement and research and development (R&D) spending. Secondly, the author examines the behavior of the European defense industry by looking at the top five major arms-exporting member states—Germany, France, the UK, Spain and Italy.

The researcher does not aim to encompass all EU member states' defense equipment contracts o all transactions of defense companies. However, some examples of both categories are used, as they have widely been accepted as symptomatic of the EDEM.

One of the basic limitations of the research is the data availability because of the sensitive nature of defense economic transactions both at the government and industrial level. However, the European Defence Agency (EDA) Defence Data initiative offers abundant macroeconomic data (including gross domestic product [GDP], overall government expenditure, and total defense expenditure) and defense expenditure breakdowns (including defense investments, collaborative defense equipment procurement, R&D, etc.). The availability of data for the supply side of the defense market is much more limited, since there is no single integrated database for all defense companies in Europe. One of basic reasons is the blurred line between defense and security companies today. For the industry analysis, the author relies on sources such as the Stockholm International Peace Research Institute (SIPRI) yearbooks, published documents of EU governments, annual reports and studies, and others. The main indicators used to analyze the European defense equipment demand are total defense expenditures, defense investments (including equipment procurement and R&D), outsourced defense expenditures, and collaborative defense equipment procurement, while the analysis of the European defense industry (the supply side of the market) is based on data such as total arms sales, geographic distribution of the international trade of conventional weapons, employment of the defense industry, and others.

The basic method used for approaching the topic is a qualitative research of the institutionalization process of the European defense procurement and, in particular, how this process has affected the consolidation and competitiveness of the EDEM so far.

To measure and analyze this effect, the researcher applies the theoretical framework for explaining the competitive market and free trade, market distortion, tariff and non-tariff barriers in a broader sense, and economic integration, economic growth, international arms trade, imperfect competition, and other relevant economic theories in a narrower perspective. Since the researcher tries to give a holistic account, this may require reporting multiple perspectives, including a legal interpretation of defense procurement procedures, or clarification of the member states' resistance to yield their sovereignty to the EU bodies when dealing with security and defense matters, and the like.

The research is focused on the time frame 2005–2012 when the EC first brought common defense industrial and market issues to the attention of the member states up to date. At the same time, the financial crisis of 2008 and the following recession were an important watershed for many European countries and, in particular, for their defense budgets and long-term armament programs.

The topic of the development of the EDEM has been discussed in many studies so far. However, most research papers are focused mainly either on the institutionalization process (offering a critique of the role and contribution of different EU bodies, particular member states, or some key initiatives in this area) or on the competitiveness of the defense industry in a European or global context. The difference in the armaments policies between the EU and the United States has also been discussed as being the closest allies and, at the same time, the main competitors in the global arms trade.

What has been missing so far is a comprehensive analysis of how exactly the new European defense procurement framework is expected to contribute to the achievement of a more competitive and stronger EDEM, and whether these expectations are feasible or not. Unlike the existing consensus that a stronger and less fragmented European defense industry is needed to sustain and enhance the EU military capabilities and autonomous

actions, there has been different reasoning on how this goal should be achieved. Thus, the main contribution of this paper is to create a more comprehensive and critical picture by questioning the feasibility of the EU model toward the EDEM and by using the experience and the lessons learned by the United States on its way of achieving defense industrial and technological superiority in the world.

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II. BACKGROUND AND LITERATURE REVIEW

A. CHARACTERISTICS OF THE EUROPEAN DEFENSE EQUIPMENT SUPPLY AND DEMAND

The European defense industry has long been under strain. In recent years, however, pressures on the European defense sector have increased as the U.S. defense industry—Europe's largest competitor in this area—has widened the economic and technological gap. This disparity has been further exacerbated by the process of the U.S. defense transformation, which threatens to drive the transatlantic wedge even wider (Bitzinger, 2009). Increasingly, the European defense industry faces a fundamental challenge of maintaining its economic and technological competitiveness.

The imbalance in European and U.S. military capabilities has been an issue for the North Atlantic Treaty Organization (NATO) throughout its history, but the last decade has seen serious concerns that this gap could grow to such an extent that U.S. and European armed forces will find it increasingly difficult to operate effectively together (James, 2005).

1. Consolidating the Supply: European Defense Industry after the Cold War

After the end of the Cold War, one could barely talk about a real EDEM—it was just a sum of separate and disintegrated national defense markets of the then 15 member states of the Community. During the early 1990s, the global demand for defense goods and services was downsizing considerably and the U.S. defense industry launched rapid consolidation, while most European defense companies continued to look inward (Bitzinger, 2009). Gradually, this retarding European development started causing significant political anxiety and concern on both sides of the Atlantic. It was not just the considerable difference in the consolidation velocity, but also in the principle difference of how the United States and the EU approached the restructuring process itself.

As a result of the shrinking defense expenditures, the U.S. defense industry closed down excess production facilities and eliminated hundreds of thousands jobs (Bitzinger,

2009). At the same time, a process of consolidation, mainly through large-scale mergers and acquisitions (M&A) led to the creation of five mega defense companies—Boeing, Lockheed Martin, Northrop Grumman, Raytheon, and General Dynamics. The consolidation in the United States greatly reduced the competition in the domestic defense market and concentrated the production of specific defense platforms or systems in just one or two mega-manufacturers. All these top five companies managed to integrate successfully the expanding IT sector into their defense-related production. Consequently, these manufacturers implemented the key U.S. Department of Defense (DOD) programs and gained dominant access to the government-funded defense R&D. The latter has always been of critical importance for the domestic defense industry as U.S. defense equipment expenditures have increased considerably after September 11, 2001 (Bitzinger, 2009; Guay & Callum, 2002).

At the same time, the process of post-Cold War adjustment in Europe was much more complex, since the reorganization necessarily involved cross-border mergers. The latter usually raised political issues, especially in European countries with significant and state-owned defense industries (Dunne, 2009).

The European consolidation process was funneled by large national defense "champions" who acquired either small domestic firms or foreign companies from other EU countries with minor defense industries. These acquisitions usually took the form of joint ventures or multinational consortia—quite suitable for the participating companies to keep their national independence. Cross-border mergers were undesired and hindered by both governments and industry. On the one hand, European national governments were resistant to accept the acquisition of a local defense company by a foreign firm because of the possible loss of sovereignty (i.e., control over a strategic company) and the political consequences of job losses that might be induced by the acquisition and following restructuring of the manufacturing process. On the other hand, the top managers of these companies were uncertain about what would follow a cross-border M&A in terms of their own careers within the new business formation. Another important consideration against internationalization of national defense companies was the special relationship between the governments and domestic defense firms that held

monopsonist and monopolist positions, respectively. Maintaining the status quo looked like the safest option for both European business and governments (Guay & Callum, 2002).

However, in the late 1990s the consolidation process in Europe accelerated the pace, and as a result, two major defense companies started dominating the European defense equipment market—BAE Systems and the European Aeronautic Defence and Space Company (EADS). The fact, that the global export market became crowded and highly competitive, had made consolidation among European producers a necessity (Guay & Callum, 2002). The consolidation methods of these two companies were remarkable since they represented two different strategies. In the BAE Systems case, the consolidation process occurred with the UK national defense infrastructure concentrated in a single national champion (British Aerospace acquired GEC), while EADS was established through transnational mergers within similar sectors of the defense industry. Europe's third largest defense company, Thales, followed an approach similar to that of EADS (Guay & Callum, 2002).

But it is much more important to point out that these two strategies represented two different views on how the European defense companies with global ambitions would see their future participation in the global defense market. The establishment of EADS was not driven by governments but by the industry managers who tried to make their business decision independent, as much as possible, from any political interference and employment considerations. The first steps toward EADS included national consolidation of French defense electronics companies (Aérospatiale and Matra), and a few months later, the combined entity merged with the German Deutsche Aerospace AG (DASA) and Spain's leading aerospace and defense firm, CASA.

Europe's third largest mega-company, Thales, started in 1997 as a merger of Thomson-CSF, Dassault Electronique (the space and defense electronics business of Alcatel), and the satellite branch of Aérospatiale. In 2000, Thales acquired British Racal Electronics.

Another example of a similar consolidation strategy was the world's second largest missiles manufacturer, MBDA, which was formed in 2001 by the merging of the missile branches of EADS, Finmeccanica, and BAE Systems (Guay & Callum, 2002).

The generic similarity between the consolidation cases of EADS, Thales, and MBDA was their predominantly European-centric orientation. For instance, EADS became a leading actor in its four home countries: France, Germany, Spain, and the UK. Furthermore, the complex holding structure allowed participating states to play a role within the company (Kenny, 2006).

Unlike the aforementioned companies, BAE Systems undertook a different strategy. Initially, this company looked like a creation of a national champion, but soon became more or less "a test case of a new breed of firm: a genuine Atlantic partnership" (Guay & Callum, 2002, p. 761) between the United States and a European defense company. The acquisition of Tracor (the largest subsidiary of GEC in the United States) was a logical explanation for why BAE chose to merge with GEC rather than with Deutsche Aerospace AG (Germany). BAE Systems positioned itself to benefit both from advances in Europe (enjoying a significant stake in major EADS programs) and from joint American ventures (Kenny, 2006). At that time, any formal merger between BAE Systems and a U.S. defense company was hardly possible. However, the British defense industry had always enjoyed a much better relationship with the United States than the other major European countries, especially in terms of access to the more advanced American defense technology (Guay & Callum, 2002). Such a relationship became even more critical for the European defense business after 9/11, when the United States additionally restricted foreign access to domestic sophisticated technologies in order to protect them from falling into the wrong hands.

The European consolidation process seems even more problematic if one shifts the focus from the aerospace and electronics sector to the land and naval systems (Kenny, 2006). With regard to the land systems, monopolies or duopolies control the domestic markets of the countries with biggest defense industries, like the UK, Germany, and France. Some researchers suggest that different paths for economic and political reasons for the particular arms-producing sectors presuppose their uneven development (Guay &

Callum, 2002). Rapidly increasing development costs and shorter production runs had made cross-border cooperation in the aerospace sector an economic imperative since the 1960s. Until recently, the land armaments sector was on much less pressure to restructure due to the modest increases in R&D costs and relatively longer production runs. This circumstance shows that the pace of European restructuring has been influenced significantly by technology (Guay & Callum, 2002).

To sum up, U.S. defense industrial restructuring was launched in the early 1990s, went relatively fast, and led to the consolidation of almost the entire industry around five mega-firms. The drawbacks of this approach were the elimination of hundreds of thousands of jobs and the significant reduction of competition within the U.S. market. Unlike the U.S. model, European consolidation started at the end of the 1990s, favored the biggest national champions and limited intracommunity defense industrial collaboration in order to keep the national independence of the participating companies. European defense companies followed two different consolidation strategies; the more popular was European-centric, while the other aimed to use the opportunities of both European and U.S. defense equipment markets.

The major effects of the different approaches were that a handful of U.S. defense companies started dominating not only their highly protected home market, but also the global arms trade. The U.S. defense market accounted for half of the world's arms demand, which gave the domestic defense firms a solid basis of money-spinning procurement contracts and access to world's biggest government-funded defense R&D. This, in turn, allowed the U.S. companies to expand easily into the global arms market, where they confronted European arms manufacturers. Unlike the U.S. companies, which were under much less business pressure to compete aggressively beyond their borders, third-party markets were essential to the survival of the European defense industry. With regard to the transatlantic arms trade, there is a huge imbalance in the existing relations—the U.S. defense companies have extensive access to the European defense equipment market, while the European defense firms are trying to overcome the American trade barriers (Kenny, 2006).

Moreover, U.S. defense equipment producers had comparative advantage when it came to foreign arms sales. Large domestic demand allowed them to account economies of scale and to sell abroad their systems at very competitive prices and offer attractive industrial and technological inducements like offsets and coproduction rights. All this enabled the U.S. defense companies to develop and sell military systems that were most attractive in terms of technology and price (Bitzinger, 2009).

2. European Demand for Defense Goods and Services

If one of the major weaknesses of the European defense industry market is the relatively small and fragmented demand (compared to the U.S. model), then it becomes critical to understand what drives the European demand for defense goods and services. Due to the specific nature of the arms trade, and in particular the fact that governments are the only buyers of military equipment, public defense expenditure is the basic determinant of the demand for defense goods and services.

a. European Defense Spending and the Aggregate Demand

In theory, defense spending can affect the economy in several ways. On the one hand, increased public expenditure may stimulate growth and lead to growing capital utilization and higher employment, which in turn may lead to increases in the profit rate to induce higher investment. Thus, defense spending can act as a short-run multiplier and a generator of higher growth rates. On the other hand, by launching significant arms programs, increased defense spending may have retarding effects because of the investment crowding out, inflationary pressures, and the reduction of available public funds for spending and investment in other, potentially more productive and growth inducing areas (Kollias, Manolas, & Paleologou, 2004). This is usually the scenario when governments finance such programs with deficit spending through the use of borrowed money. Because governments borrow large amounts of capital, their activities can increase interest rates, which in turn discourage businesses from borrowing money and investment activities.

Both cases presuppose that such expenditures are causally prior to economic growth. However, it is possible that growth may be causally prior to defense spending,

and a country with high growth rates is more willing to allocate resources either to defense or to more productive branches of the economy.

Namely, the direction of this causal relation between growth and defense expenditure may cause a number of policy implications. If, for instance, the direction of causality is found to be from growth to military spending, then this could be an indication that a government is trying to protect the population from external threats or to pursue some strategic objectives in the international scene. If, on the other hand, the direction of causality is from defense expenditure to growth, this may indicate the presence of aggregate demand and employment effects that to a large extent may be attributed to domestic arms production and spin-offs from military R&D.

An empirical study (Kollias, Manolas, & Paleologou, 2004) examines this causality relationship of the defense expenditure and economic growth in the European Union for the period of 1961–2000. The quantitative analysis explores four possible causal relationships that can be established empirically:

- Unidirectional causality from growth to military spending;
- Unidirectional causality from military spending to growth;
- Bi-directional causality; and
- No causality.

Although the results reported in this analysis do not reveal uniformity among all EU member states, the authors argue and the study shows apparent prevalence of the direction of causality from growth to military expenditure, as well as the absence of the reverse causal ordering (Kollias, Manolas, & Paleologou, 2004). This suggests that an important number of European countries is willing to spend more for defense when their economies perform better rather than for geopolitical and security considerations.

b. Defense Transformation and the Quality of Demand

Industry also reflects the quality of demands of its customers. The principle challenge for the European defense industry remains the relatively slow pace at which European political and military leaders are willing and able to adopt the new

transformational technologies and allocate the needed budgets for procurement and R&D (James, 2005).

In this regard, the transformation of the U.S. military represents one of the most important technological and industrial challenges to the European defense industry (Bitzinger, 2009). The United States understands defense transformation as not just a modernization, but as a paradigm shift in the character and conduct of warfare. Because of the IT-based Revolution in Military Affairs (RMA), the U.S. transformational model is strongly linked to the information revolution of the past two or three decades and to resultant emerging concepts of network-centric warfare (NCW). This transformational model does not imply a simple overlay of new technologies and new hardware over existing force structures. It entails fundamentally changing the way a military does business—doctrinally, organizationally, and institutionally. This requires advanced systems integration skills to knit disparate military systems into a complex operational network. Finally, it demands elemental changes in the ways the military procures critical military equipment and a reform of the national and defense technological and industrial bases that contribute to the development and production of transformational systems (Bitzinger, 2009). As a result, since the early 1990s, the U.S. defense industry has been shifting the focus from platforms towards defense electronics and system integration activities (James, 2005).

However, most European countries understand NCW as evolutionary modernization rather than transformation and disruptive innovation of the forces. The prevailing European skepticism questions the transformational nature of NCW, the applicability the model to the European strategic environment, and its affordability for the much more limited defense budgets of Europe (Jones, 2006). Instead, most EU member states prefer a more selective and incremental approach toward applying transformational technologies and systems to their armed forces, utilizing them as force multipliers (Bitzinger, 2009).

Against this dominating background in Europe, the British government has admitted that that there is no realistic way that it can follow the U.S. vision of complete transformation of its armed forces. Instead, the UK is pursuing an incremental and

selective development of the transformational capabilities—Network Enabled Capabilities (NEC)—which are expected to improve the effectiveness of the British armed forces in a context of coalition warfare. Germany and France started to address such questions in a similar fashion (James, 2005).

One of the major issues for the European transformational efforts so far is that they still appear to be more platform-oriented than capability-driven, which makes these efforts look like piecemeal and post hoc (Bitzinger, 2009). In addition, there does not appear to be any pan-European transformational vision that in turn drives requirements, programs, and interoperability, particularly on a regional basis. As a result, Europe has been much slower than the United States to adopt transformational technologies (Bitzinger, 2009). However, the reality shows when customer requirements have emerged, the European defense industry is able to develop and offer solutions to European capability shortfalls (James, 2005).

c. European Collaboration Programs – Pooling the Demand

European cooperation in armaments has been a political and military objective since the end of the World War II (WWII). Although the first cooperative programs were launched in the 1960s, their number increased significantly over the following decades (Kenny, 2006).

The reasons for the increased defense industrial collaboration between the European countries during the last two decades have been explained mainly with the structural changes in the international systems (Jones, 2006). The structural shift from a bipolar to a unipolar structure of the system has driven Germany, France, and Britain to collaborate in the defense industry in order to increase their economic and military power and decrease their reliance on the United States. This collaboration is not because the United States posed any military threat, but rather because the European defense industry is motivated to collaborate in order to compete globally with the U.S. defense industry in terms of arms sales and spin-offs, as well as to lessen the reliance on the United States for weapons (Jones, 2006).

The existing reliance on the United States has several important consequences for Europe, such as decreased security of supply (SoS) and fading ability to develop cutting-edge technologies. The first Gulf War (1991), the Bosnian war (1995), and the Kosovo war (1999) were reminders that European countries were extremely dependent on U.S. power to conduct even modest military operations. This state of play gave the United States the ability to cut off weapons or supplies in case of an emergency. A classic example for the latter was the Global Positioning System (GPS) for navigation and the Kosovo war, when the United States cut the GPS signal. As a result, Europe came to the consensus that it could not "afford to be totally dependent on third countries in such strategic areas" (Jones, 2006). European nations needed significantly to improve their military capabilities, especially when they had to deal with crises in and around the Old Continent, or in circumstances where NATO was not engaged. These were some of the main causes for the "notable shift in the procurement behavior of European states" (Jones, 2006, p. 256).

Defense equipment cooperation had important implications for European armaments acquisition and integration, but it amassed a lot of critics too, mainly because of the limitations and drawbacks of the existing programs. The latter had been a focus of many comprehensive analyses so far, and their main problematic characteristics included:

- These programs had been based on "juste retour," or work-share agreements, in order to satisfy participating governments' goal to increase domestic employment in exchange for spending taxpayers' money on defense (James, 2005). For instance, the production of the Eurofighter was geared by the principle of dividing the aircraft into its component parts, which were produced in different countries in order to give a return on investment (ROI) proportional to their financial participation in the program (Hartley, 2008). This model of European cooperation demonstrated the importance of industrial return (Kenny, 2006).

- Costly collaboration R&D programs suffered duplication of efforts and investments, especially for major platforms such as aircraft, helicopters, warships, or complex navigation systems, and the like. Despite higher aggregate development costs on collaboration, each partner bore a share of these costs only so that there were cost savings to the individual participating governments (Hartley, 2003).

- Participating defense companies usually failed to obtain economies of scale because of the limited scale of production for the small national markets (Hartley, 2003).

- Programs had been frequently dogged by problems because they were often established after national equipment requirements had become relatively firm—leaving the collaborative program to find a common solution to often-conflicting national requirements (James, 2005).

- These programs had marked a high failure rate and cost over-runs for those that survived. A classic example could be the A400M military transport aircraft, which was subject to difficult political disputes. Even getting the program under way was not easy despite a consensus among European governments about the importance of improving their collective airlift capability (James, 2005).

The main critique to the European armaments collaboration programs was in terms of their inefficiency. Hartley (2003) argued that the aggregate costs of collaborative development compared with national alternatives can be about 140% for two nations (e.g., the Merlin helicopter), 161–179% for three nations (e.g., the Tornado Program) and almost twice as high for four nations (e.g., the Eurofighter) This inefficiency resulted in an economy of scale that is about half of those on national programs.

However, the major problem in applying economic principles to European armaments policy is that the actual policy departs significantly from the theoretical economic efficiency:

- Efficiency gains are free because the creation of a European defense equipment market will incur some adjustment costs related to plant closures and job losses. Because some member states and companies are expected to lose more than others, these “losers” will probably oppose any efficiency improvements that are likely to make them worse-off.

- European countries with specific high-value defense assets such as nuclear-powered aircraft carriers and submarines, or strategic bombers, face significant challenges in retaining their defense industrial base.

- Maintaining competition remains a challenge because the defense industrial restructuring has led to domestic monopolies and duopolies. Where competition is not available, it is almost impossible to determine the profitability of non-competitive defense purchases (Hartley, 2003).

The theory suggests an optimum point where the marginal benefits of consolidation start overweighing the marginal costs of limited competition. However, it is practically impossible to define when exactly the defense sector reaches this point. The main limitation consists in how one determines the size of the market when calculating the theoretical efficiency level. In this particular case, any M&A could be scrutinized in terms of the domestic (U.S. vs. European) market, or in the broader context of the transatlantic market (Guay & Callum, 2002).

B. INSTITUTIONALIZATION OF THE EUROPEAN DEFENSE EQUIPMENT MARKET

European defense armament collaboration programs have followed one of four distinctive models: (a) a single country or pilot nation represented the executive body of the program, (b) participating states carried out programs together through close arrangements that constitute the work sharing, (c) a large number of partner nations worked through a NATO agency to fund an international management group that followed a complex plan; or (d) the executive body was a program office with international staffing (Kenny, 2006).

Each of these program management models had important implications for both European armaments acquisition and defense market integration. However, a much bigger problem derived from the differences in the rules governing the EU market and defense domains. Market issues come under the first pillar, with the European Commission as the strongest actor, while defense matters come under the second pillar, where the European Council is the main actor. The most puzzling question remains namely to which European pillar the defense industry belongs (Kenny, 2006): the first pillar, where economic (including industry and market) issues are decided, or the second pillar, which covers security and defense policy?

1. Setting Up the Political Foundations

When dissecting the European defense equipment market, especially when comparing it with the U.S. market, one must always take into account that this marketplace had been for a long time the sum of the national markets of European

member states. For more than 50 years, there was an effective veto on the discussion of defense matters within the European institutions. Thus, the defense politics and industry issues in practice were not part of the European integration process.

The historical breakthrough came in 1998 at the Saint-Malo summit when the two key military players in Europe—France and Great Britain—agreed on the legitimacy of an EU security capacity (Howorth, 2001). This summit came just about a year after the signing of the Amsterdam Treaty in 1997, where the Common Security and Defence Policy (CSDP) was created. In Saint-Malo, France and Britain agreed that if the European Union wanted to be in a position to play its full role on the international stage, it should have the capacity for autonomous action, backed up by credible military forces (Jones, 2006). Both countries agreed that "Europe needs strengthened armed forces that can react rapidly to the new risks, and which are supported by a strong and competitive European defence industry and technology" (EU Institute for Security Studies, 1998).

In 1999, during the Helsinki summit, the European Council decided to develop an autonomous capacity to make decisions and, where NATO as a whole is not engaged, to launch and conduct EU-led military operations, and a year later at the Nice summit, the EU committed to form 100,000 troops with 400 aircraft and 100 ships, including a 60,000 EU rapid reaction force (ERRF) to deal with regional conflicts or humanitarian crises. The commitment to send up to 60,000 troops anywhere in the world at 60 days' notice and sustain them for one year would place considerable strains on the defense equipment and infrastructure of the European member states. This raised serious concerns about the existing defense industrial capacity in Europe (Guay & Callum, 2002).

The European defense institutional engineering between late 1999 and 2001 was barely an easy task, since the key military players had different understandings about the role of the Union in the common defense. The establishment of the High Representative for CFDP, the Council of Defence Ministers (CDM), the Political and Security Committee (COPS), the EU Military Committee (EUMC), and the EU Military Staff (EUMS), as well as the creation of several committees and working groups to facilitate the links between the EU and NATO, represented the new institutional machinery attached to the Council (Howorth, 2001).

Different EU member states had different political expectations and intentions with regard to the institutionalization process. Most countries with small defense capacity supported the ambitions of the key players—France, Britain, Germany, and to a lesser degree—Italy. However, the key players did not share the same view. For instance, most important for the UK was the ability of the Union to make political decisions concerning security and, in particular, if this involved military intervention. The British government understood the idea of the ERRF more or less as a European generation of military capacity, but not as a foundation of a "European army" (Howorth, 2001).

The Saint-Malo and Helsinki summits gave the political backup to the private sector reorganizations that occurred in the late 1990s and early 2000s. This political context provides the explanation for why the mergers and acquisitions occurred mostly among EU companies, and not between EU and non-EU companies. However, this restructuring process was at large a business-driven work with less direct push by national governments, and this reversal of roles was an important move towards the Europeanization of the defense industry (Guay & Callum, 2002).

This did not mean, though, that European governments had turned the initiative to the private sector at all. Indeed, in July 1998 the defense ministers of France, Germany, Italy, Spain, Sweden, and the UK signed a Letter of Intent (LoI) agreement, which was designed to create the necessary conditions to facilitate European defense industrial restructuring. This commitment was further reinforced by the signing of a follow-on Framework Agreement in order to promote a more competitive and robust European Defence Technological and Industrial Base (EDTIB) in the global defense market. Without being an EU institution, the LoI agreement aimed to coordinate the efforts of the six biggest defense industrial countries in Europe towards closer armaments cooperation. The LoI agreement covers several important areas of collaboration—SoS, exports procedures, security of information (SoI), treatment of technical information, research and technology, and harmonization of military requirements (UK Ministry of Defence, 2012).

In 1998, France, the UK, Germany, and Italy signed an agreement for a joint armaments organization—the Organisation for Joint Armament Cooperation (OCCAR).

Previous efforts to coordinate defense procurement, such as the Western European Armaments Organization (WEAO) and Western European Armaments Group (WEAG), were not quite successful. Discussions on integrating the WEAG and WEAO, as well as OCCAR, into existing EU structures must be seen in the context of the EC taking greater initiative in the armaments field. If brought about successfully, the institutionalization of defense procurement built upon the LoI framework agreement would be the nucleus of enhanced defense cooperation in Europe (Guay & Callum, 2002).

The political, industrial, and military landscape had changed significantly after the LoI Framework Agreement had been signed. In 2004, the European Defence Agency was established. The EC took an ever closer interest in defense industrial and market issues, and the defense industrial base became increasingly globalized.

2. European Commission Focus on Defense Procurement

The way that the political framework for the European defense had been set up predetermined the central role of the Council for shaping the EU defense agenda. However, this did not mean that the EC abandoned defense industrial policy to the member states. Indeed, the Commission started reminding more and more persistently that it was entitled by the treaty to ensure the conditions for the competitiveness of all Community industries, including the defense industry (Guay & Callum, 2002).

A first important step toward the closer involvement of the Commission in the creation of an institutional framework of European defense procurement had been considered the communication “Towards an EU Defence Equipment Policy” from March 2003. The basic argument of this communication was that strengthening the industrial and market situation of European defense companies would greatly improve the EU’s ability to fulfil the Petersberg tasks in the accomplishment of the European Security and Defence Policy (ESDP). It would also benefit collective defense by strengthening Europe’s contribution to NATO.

For the first time, the EC outlined the objectives of a European Defense Equipment Policy:

- Consolidation of the European defense equipment demand was understood as harmonization of the military and other security related requirements, as well as harmonization of the planning and procurement of defense-related equipment. Expected benefits would be twofold. From a military perspective, these harmonization processes should lead to increased interoperability. From an economic point of view, member states would benefit from economies of scale in production and savings from their increased bargaining power in acquisition, which finally would lead to reduced cost.

- Consolidation of the European defense equipment supply was seen as a completion of the industrial restructuring and primarily as a responsibility of industries themselves. However, the Commission and member states could develop supportive policies and actions towards the creation and maintenance of a competitive industrial structure in Europe.

- Creation of the defense equipment market would require an appropriate EU regulatory framework that addressed internal and external aspects, appropriate rules for cost-efficient procurement of goods and services, and economically efficient export controls. This binding framework should promote reciprocal market access and bring legal certainty as well as uniform implementation of legislation.

- European defense-related research was considered as fragmented and underfunded because the EU countries invest four to five times less than the United States (European Commission, 2003).

The communication proposed action in several fields—standardization, monitoring of defense-related industries; intra-community transfers; competition; procurement rules; export control of dual use goods; and research.

The *Green Paper on Defence Procurement* (Schmitt, 2004) was a significant step further because it signaled the Commission's unequivocal ambitions to take more control over the development of the European defense equipment market. This document not only offered the Commission's view of the limits of the existing European regulatory framework, but also reasoned that the opening up of the defense markets would increase the competitiveness and business opportunities for all European firms in the sector (European Commission, 2004). The green paper outlined the negative effects of fragmentation of the European defense equipment market (Bialos, 2009), and suggested options for the EU to increase transparency and market openness:

- The existing fragmentation of European defense markets was the major issue for all stakeholders. Given the reductions and the restructuring of the armed forces, the size of national markets was no longer sufficient to produce volumes that can offset the high R&D costs of the contemporary defense systems. This situation increased the cost to the taxpayer and damaged the competitiveness of the European defense industry. In this context, the Commission did not spare criticism of the existing armaments collaboration programs in Europe. According to the Commission, these programs had modest success and could not contribute to the creation of a competitive European defense market, mainly because of the application of "juste retour," which distributed work on purely policy criteria instead of competitive procedure (European Commission, 2004).

- Defence markets had specific features, which were not only economic and technological, but were also related to the security and defense policies of each member state. The EC recognized that defense industries were considered strategic national assets and had special relations with the state. All this determined the dominant role of the state in terms of the demand creation and the long-term competitiveness of industry. Because of the complexity of arms development programs, as well as SoS and SoI requirements, the maintenance of a purely national industrial capacity for defense might seem a reliable way of being able to respond to strategic interests and emergency situations like military operations. Additionally, "off-the-shelf" weapons deals were often subject to supplementary offset (compensatory) agreements, where the buying country required a return on investment (ROI) that exceeded the value of the original contract.

- The limits to the existing legal framework were predetermined mainly by the Community exemption system (at most Article 396 (ex Article 296) of the Treaty for the Functioning of the European Union (TFEU)), as well as how the member states applied this exemption to their national legislations (European Commission, 2004; Bialos, 2009).

Article 346 TFEU allows member states to derogate from the rules of the Internal Market for the procurement of arms, munitions, and war material in case they are concerned about their essential security interests and are included in the list attached to the article. For defense contracts that do not meet these requirements, the regular public procurement directives of the Internal Market (Directive 2004/18/EC and Directive 2004/17/EC) should be applied.

According to Article 346 TFEU (ex Article 296 TEC),

> (1) The provisions of this Treaty shall not preclude the application of the following rules:

> (a) no Member State shall be obliged to supply information the disclosure of which it considers contrary to the essential interests of its security;
>
> (b) any Member State may take such measures as it considers necessary for the protection of the essential interests of its security which are connected with the production of or trade in arms, munitions and war material; such measures shall not adversely affect the conditions of competition in the common market regarding products which are not intended for specifically military purposes.
>
> (2) The Council may, acting unanimously on a proposal from the Commission, make changes to the list, which it drew up on April 1958, of the products to which the provisions of paragraph 1(b) apply (European Union, 2012)

In its case law, the European Court of Justice (ECJ) made it clear that the exemption under Article 346 should by no means automatically apply, but instead only after meeting certain conditions. De facto, most member states considered Article 346 as a legal mechanism to use their own procedures for most defense contracts. These national procedures, in turn, vary greatly between European countries with regard to the publication of contract notice, specifications, tendering procedures, selection and award criteria, etc. The outcome was a regulatory mixture across Europe that lacks uniformity and transparency, damaged fair internal competition, and thus represented the major impediment for the creation of a real functioning EDEM (Schmitt, 2005).

The Commission identified two possible legal tools. The first option was a non-legislative instrument (an EC Interpretative Communication) and was thus limited to clarification of the existing legal framework only. The second option aimed at introducing new procurement legislation (a special EC Directive) adapted to the specific characteristics of the defense sector (European Commission).

The Green Paper opened official consultations that were managed by the Internal Market Directorate-General of the Commission. This showed the Commission's special attention to defense procurement, which later would become the key point for EC initiatives to open up national defense markets in Europe. However, these consultations showed significant differences in general understanding about how to proceed further with defense market regulation. There were optimistic and pessimistic views on both proposals for actions by the Commission.

Since some thought that a clarification of the existing law (the first option) would be useful and could contribute to eliminating member states' current practice to invoke Article 346 automatically, there was a clear skepticism about any benefits from an EC interpretative communication at all. The pessimists opposed the communication with the argument that it would do nothing to change the existing legal framework and would not contribute to a more homogeneous regulatory framework. Moreover, the decision on whether or not defense contracts concern essential security interests would be a political rather than a legal one (European Commission, 2005). In this regard, a communication would clarify how to use Article 346, but not for which contracts (Schmitt, 2005). Realistic expectations included:

- A Communication would probably increase the level of competition, but mostly for non-warlike items like military uniforms or boots.
- For less sensitive warlike items like rifles, which did not meet the conditions of Article 346, competition could increase as well, but only to a limited extent.
- The high-value defense goods like complex systems (related to the essential security interests of the member states) would probably be not impacted by the communication at all.

Given these expectations, there was a consensus that an interpretative communication would neither contribute to the competitiveness of European defense companies, nor would it foster armaments cooperation that usually did involve complex systems (Schmitt, 2005).

The discussions on the second option—a new defense procurement directive—made clear that this directive would not to replace Article 346, nor would it limit member states' right to apply exemption for contracts related to their essential security interests. It would aim to stop the misuse of the exemption clause. Thus, the directive would focus on defense contracts that were not related to the essential security interests of the member states.

This debate revealed that even supplementing the EU's legal framework with a new defense-focused directive would not resolve the main issue—the exemption of EU law by the discretion of the member states. Some experts admitted that "the vagueness of

the notion of ‘essential security interests’ would continue to create problems for the interpretation and implementation of European law in this market segment” (Schmitt, 2005, p. 3) and even a defense directive would not be able to overcome this issue.

An important outcome from the debate was the inclusion of a third option—mandating the EDA to establish a Code of Conduct on Defense Procurement under Article 346. This code would be a political but not a legally binding instrument, which would complement the Community instruments and pursue the same objective in a different segment of the defense market (European Commission, 2005).

In December 2006, the Commission released an interpretative communication on the application of Article 346 of the Treaty in the field of defense procurement. The communication set out the principles governing the application of the exemption clause in order to prevent possible misinterpretation and its misuse (European Commission, 2006). Furthermore, the document explained the conditions for the application of the derogation that was drawn from the case law of the ECJ, which would have the right for a final judgment in terms of the scope of Article 346. What the communication did not provide was an interpretation of the concept of “essential security interests” or a determination of which contracts were to be included in the scope of Article 346 (European Commission, 2006).

Though, to restrict the ability for a wider interpretation by the member states, the communication required from every member state applying the exemption clause to furnish evidence under the specific condition of the procurement in question. The core questions that the member state should be able to answer include:

- Which essential security interest is concerned?
- What is the connection between this security interest and the specific procurement decision?
- Why is the non-application of the Public Procurement Directive in this specific case necessary for the protection of this essential security interest? (European Commission, 2006)

The next step of the EC, evaluated by some observers as perhaps the most significant (Bialos, 2009), was in December 2007 when the Commission announced the

so-called “Defense Package” (European Commission, 2007b). This was the first effort by the Commission to put in place binding rules on the defense market and contained three parts that together were intended to provide a “harmonizing” legal framework for defense procurement:

- The already released Interpretative Communication on the application of Article 346 TFEU;
- A defense procurement directive;
- An intracommunity defense transfers directive.

This “defense package” was described as “the culmination of years of prior efforts by national cooperation, EU and other European bodies” (Bialos, 2009, p. 192). It was based on the prior EC communications and it incorporated some important elements of the LoI Framework Agreement. At the same time, it claimed to reflect the consensus of all member states on the need for a new European law on defense procurement.

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III. THE ECONOMIC LOGIC OF DEFENSE MARKETS

A. COMPETITIVE MARKET AND FREE TRADE

The core of the market economy theory is based on one of the most fundamental concepts of economics – the supply and demand model. According to this theory, precisely the relationship between demand and supply underlie the forces behind the allocation of resources. Theoretically, when demand and supply are equal the economy is at equilibrium. It means that the available resources are allocated in the most efficient way possible.

The starting point of the current chapter will be namely the application of the supply and demand model in the international trade. As a next step, the analysis will focus on some market distortions (usually caused by externalities) and how governments try to fix them by interfering in the trade. All this, combined with the unique character of the defense-related goods and services, will demonstrate how hard it is to apply the market economy theory to the defense equipment markets and arms trade. The issue becomes even more complex when one analyses the integration of defense equipment markets of 28 EU member states. Even so, the economic theory remains a useful toolbox for examining "real world" problems and finding the most suitable solutions for them. Another approach could be looking at the lessons learned from the practice. For this purpose, before dissecting the emerging European model one should look at the U.S. experience (including different strategies used for fostering the competition) from the near past.

1. A Theoretical Framework for Explaining the Competitive Market and Free Trade

In the theoretically ideal world, free trade is economically efficient because it usually results from the interaction of competitive demand and supply. On the one hand, the demand of a good depends on a number of variables such as the consumer's income and taste (preference), price of the good in question, prices of other products, and so on. It is usually assumed that the main goal of any rational consumer is to get as much utility

as possible by spending the available limited resources for the specific good. On the other hand, the supply of the same good usually depends on the price that the supplier receives from its sale, as well as on the production and selling costs of the product. The cost of producing another unit is influenced by the inputs (such as labor, capital, land, and materials) needed to produce the extra unit, and the prices of these inputs. The main goal of any rational supplier is to earn a profit on production and sales activities (Pugel, 2012).

The free trade model assumes the "invisible hand" of market competition to reach globally. By extending the demand-supply framework to international trade, the economic theory offers four basic explanations about international trade:

- The reason why countries start trading lies in the initial price difference of goods due to the different demand and supply between countries in a no-international-trade condition. The price differences between previously separated markets drive firms to trade by earning profits from the arbitrage. Thus, according to the theory, trade is a positive-sum activity. The entire world gains from trade, and each country is at least better off with free trade as with no trade. The main gain from trade consists in the ability of the trading countries to consume beyond their own ability to produce, and thus trade increases each country's national economic well-being (Pugel, 2012).

- Moving from no trade to a free-trade equilibrium removes (or least decreases) the price differences of a particular good and establishes an international price or world price. The price change in each country affects the quantities consumed and produced. In the importing country, trade raises the quantity consumed and lowers the quantity produced of that product, while in the exporting country, it is usually the other way around.

- Beneficial trade can occur even if one country is less productive at producing all products. This paradox is explained by the principle of comparative advantage based on the importance of opportunity cost (i.e., the amount of other products that must be forgone to produce more of a particular product). Thus, a country will export products that it can produce at low opportunity cost in return for imports of products that it would otherwise produce at a high opportunity cost. The Heckscher–Ohlin theory explains comparative advantage in terms of underlying differences in factor endowment—each country tends to export those goods that intensively use its relative abundant factors of production. However, the principle of comparative advantage doesn't assume that all countries get the same benefits from trade. Each country's net national gains from trade are proportional to the change in price that occurs in the shift from no

trade to free market. The country whose prices are disrupted more by trade gains more (Pugel, 2012).

- Within a country, the distribution of "winners" and "losers" from opening trade differs. The "winners" are the consumers of imported products and the producers of exportable products, while the "losers" are the producers of import-competing products and the consumers of exportable products (Pugel, 2012).

According to the Heckscher–Ohlin theory, this "distribution of winners and losers" holds only in the short run, when factors of production cannot move between sectors and the gainers and losers are defined by the product sector, not by what factors of production the people are selling (Pugel, 2012). In the long run, when factors can move between sectors and the economy achieves full employment, the division between winners and losers looks different. Economic agents, who are selling a factor that is domestically more abundant than it is in the other countries, gain from trade regardless of what sector they work in or what goods they consume. Economic agents, who are selling a factor that is relatively scarce domestically, lose from trade regardless of what sector they operate in or what goods they consume. The corollary of these long-run effects on different groups' fortunes is that trade can reduce international differences in how well a given factor of production is paid. A factor of production (for instance, less-skilled labor) tends to lose its high reward in countries where it was scarce before trade, and to gain in countries where it was abundant before trade. Under certain conditions, the factor-price equalization theorem holds—free trade in products will equalize a factor's rate of pay in all countries, even if the factor itself is not free to move between countries. Those conditions for perfect equalization are not often met in the real world, but there is real-world evidence that opening trade tends to make prices less unequal between countries (Pugel, 2012).

2. Market Distortions

However, our world is not ideal, and the real economy is characterized by market distortions from two major sources.. First, market failures are ways in which private markets fail to achieve full economic efficiency. Second, government policies can distort an otherwise economically efficient private market.

In the first case, distortions are caused by externalities and governments usually trying to fix them by interfering in the trade. However, there is a real risk of government failure to correctly identify problems and enact the right solutions. Thus, it is usually more efficient when government acts as directly as possible on the source of the distortion separating private and social benefits or costs. Nevertheless, identifying the specific source of the problem and choosing the right tool, as well as the proper time to intervene, is not always an easy job.

The second major source of market distortion is government policy, based on the assumption that restrictions on imports are the best way to deal with distortions caused by spillover effects. The protectionism defenders use different arguments to restrict imports. Among these, the most popular include:

- Promoting domestic production or employment for a particular imported product
- Protecting a domestic infant industry (by introducing a temporary tariff) that needs time to develop and become competent and strong enough to compete with foreign competitors;
- Saving a dying industry to support the firms in a particular domestic industry whose survival is threatened by the rising imports. This policy lies on the assumption that the real adjustment process of reemploying displaced workers, managers, capital, and land by another industry is not so smooth and has a high social cost;
- Helping the nation to have or be ready to produce goods that would be important in a future military emergency. Among the protectionist arguments with non-economic objectives, this national defense reasoning is the most popular one (Pugel, 2012).

Governments use different tools to deal with these market distortions, as they can vary from imposing distinct types of tariffs to non-tariff barriers (NTB). Tariffs, in general, represent a tax on imports and redistribute well-being from domestic consumers of the product to domestic producers and the government which collects the tariff revenue. Tariff rates have been declining in the most economically advanced countries, but they still are important for developing countries (Pugel, 2012).

Global efforts to liberalize non-tariff barriers have generally met less success than the global efforts to reduce tariff rates. Thus, for the purpose of the further analysis of the economic logic of a defense market, it seems important to mention some of the non-tariff barriers, namely product standards, domestic content requirement, and government procurement.

a. Domestic Product Standards

The main purpose of any product standard is to establish (legally) a minimum set of requirements that a product shall comply with in order to be able to claim a specific level of quality. Thus, in general, standards support the efforts to enhance society's well-being by addressing market failures that lead to unsafe conditions and environmental degradation. At the same time, if a government tries to protect local industry, it can always adopt standards that can be met more easily by local products than by imported products (Pugel, 2012).

b. Domestic Content Requirement

Domestic content requirement (DCR) mandates that a product produced and sold in the country must have a specified minimum amount of domestic production value, in the form of wages paid to local workers or materials and components produced within the country. DCR can create import protection at two levels. It can be a barrier to imports of products that do not meet the content rules. And it can limit the import of materials and components that otherwise would have been used in domestic production of the products. A closely related NTB, sometimes called a mixing requirement, stipulates that an importer or import distributer must buy a certain percentage of the product locally.

c. Government Procurement

Public procurements represent a major portion of total global purchases, especially in the developed world. Although not a rule, government procurement practices can often serve as a non-tariff barrier to imports if the established purchasing procedures are tailored to favor domestic products and are biased against foreign products (Pugel, 2012).

B. DISTINGUISHING THE DEFENSE MARKETS AND THE UNIQUE CHARACTER OF THE DEFENSE GOODS

Understanding the economic logic of the defense market requires a complex analysis of multiple perspectives. First, due to their nature, defense goods differ highly from the commercial goods for many reasons (a detailed explanation is provided later) and they can hardly be put in the free-market analytical framework. Selling and buying defense goods is a question beyond the pure economic logic of the supply and demand model, but also involves other variables such as national security and international politics. Second, many countries see their own defense industry as a strategic sector for the national economy. Preserving and developing this industry means to them sustaining their relative military power, sovereign autonomy, and global influence. Other countries do not put the same importance on these considerations. Third, the economic forces that drive domestic defense equipment markets are not the same that explain the global arms trade. Since the European Union is a unique example of a supranational regional integration model, the economic processes that drive the specific national defense markets within the Union look different when compared to the forces that drive the external arms trade of the Union with third countries.

When discussing the integration the European defense equipment market and what role defense procurement plays in this socioeconomic process, one has to consider the unique character of this market. On the one hand, today EDEM is composed of the different national defense markets of the 28 EU member states that have defense industries with different levels of development, ambition, and participation in the global defense economy. On the other hand, as being part of the best available example for a regional supranational integration, the economic analysis should include a broader perspective of the European Union as a global player in the world arms trade.

The defense equipment is different from any other commercial good. Before acquiring any defense equipment or system, governments have to make a fundamental decision whether to build it or buy it. The second option is more preferable by countries with modest defense budgets for acquisition and underdeveloped or lacking defense industries. However, this option may vary from buying an “off-the-shelf” or a used

(second-hand) equipment. Military off-the-shelf goods are rarely absolutely identical to each other. The manufacturer usually customizes an already developed platform for the specific needs of the customer. For instance, an armored vehicle can be equipped with alternative systems and subsystems in order to meet the technical requirements of a government to achieve a desired military capability or interoperability with other allies' or with the domestic equipment already in service.

There are cases where a country decides to buy a used equipment or system through a government-to-government agreement. This equipment improves the existing military capabilities of the specific country but rarely brings huge benefits to the domestic defense industry unless the purchasing government requires an offset, coproduction, or obtaining license. In both cases, by buying off-the-shelf or second-hand equipment, the purchasing government avoids the risk inherent in developing a new military system because "many new programs falter and are cancelled, and investments lost" (Cevasco, 2009, p. 249). By escaping the development risks, the purchasing government benefits from acquiring a proven system. However, the trade-off of this option is that the obtained equipment or weapon system is not the latest generation, which the manufacturing country wants to protect for its own use.

Buying military equipment from a foreign supplier or government is not the preferred option for the leading global and regional countries. Most of them invest in development of their own military technologies in order to have weapons that place them in a superior position to their existing or potential adversaries. This is exactly the case with the world's leading defense markets—those of the United States and the EU. For the purpose of this analysis, the main focus is placed on the economic logic of developing and acquiring a new military equipment or weapon system.

Acquiring a new military product follows an economic logic that completely differs from the familiar demand-and-supply model of the free commercial markets. Unlike commercial products that are usually produced before being sold and are market-oriented in their essence, most defense goods are oriented toward R&D and have never been manufactured before. The seller starts the actual production of the particular defense good after signing a contract with the buyer. These contracts "extend into the future"

(Agapos, 1971, p. 44), which sometimes can last several years or even more. All this presupposes significant risks and uncertainties of the outcome and makes the price-setting process of defense goods more or less a preliminary estimate rather than a clear calculation of what the producer will receive in exchange for its product or service. This estimate leaves "wide margins for unforeseen contingencies and error" (Agapos, 1971, p. 43).

While this feature of defense goods may look common for a lot of highly technological and scientific products, the marketing opportunity for purely defense goods brings an additional characteristic that make the latter unique. The defense products have only one available marketing channel—the government.

C. COMPETITION DEFICIENCIES OF THE DEFENSE MARKET

In an unregulated market, competition supposedly assures adequate economic performance through the price system. The very purpose and application of most defense goods exclude any possibility for governments to leave the defense equipment market unregulated. Due to the highly technical and scientific nature of defense goods, their demand is driven by variables other than price, such as national security and budget considerations. The current section will examine the competition limitations and risks (for both buyers and suppliers), and different strategies that the U.S. government has used to minimize these risks and to increase the competition on the domestic market.

1. Defense Procurement – Competition Limitations and Risks

The primary goal of the government is to maximize the utility of the taxpayers' money allocated for defense needs and thus to receive the maximum amount of defense goods for the minimum cost. Keeping in mind that the only legal marketing channel for defense products is the government, the buyer acts as a monopsonist, and the buyer's decisions can predetermine the market entry, growth, or existence of any defense contractor it deals with.

Just like any other business, defense suppliers are driven by profit maximization, but they do not focus on this objective alone. Defense companies are also trying to

maintain their relative market position and to minimize risks. The specifics of defense goods predetermine the oligopolistic (for some defense equipment and systems, even monopolistic) essence of the supply side of the defense market. There are only a few suppliers that can meet today's complex technical requirements of the buyer. Thus, the supply is usually composed by a limited number of firms that are either divisions of very large and diversified corporations (having business in both the civilian and defense sectors), or purely defense companies that are heavily dependent on defense expenditures because their dominant customer is the government. The relationship between buyer and purely defense suppliers is "completely dominated by the constantly changing military needs of the government" (Agapos, 1971, p. 42).

a. Buyer's Risk.

Although it may look like governments have extremely strong buying power over the defense industries, cost, scheduling, and quality outcomes are uncertain, and through the contractual agreement these risks are partially shifted back to the buyer. Most defense contracts are typically negotiated with a group of suppliers chosen by the government either by direct negotiation with one firm or by competitive bidding. The intensity of this type of competition is initially based on reputation and technical competence rather than on price. The government deals directly with a chosen contractor once the contractor selection is made. Following the selection of the contractor's proposal, price agreements are made, and bargaining sessions take place for the terms and type of contract that will be used. Once the contract is awarded and a production program for a good or service is underway, the buyer and seller are "locked together in a bilateral bargaining relationship" (Agapos, 1971, p. 45).

b. Supplier's Risk.

Critics argue that the defense industry bears no or at least less risk because the financial risk in the defense industry is decreased by cost-plus or incentive type contracts. However, the defense companies are concerned about a different type of risk—the opportunity cost risk. Defense contractors have financial and management constraints and cannot undertake all defense business opportunities available to them. Therefore, they are

forced to decide how to commit their resources for specific defense systems. Once committed, they are subject either to the risk of possible contract cancellation or to develop in a specific area of expertise.

If a substantial contract cancellation occurs, the firm can suffer very large losses and possible bankruptcy. In order to hedge against these risks, defense contractors bid on most all available defense opportunities afforded them, making price competition extremely aggressive and unrealistic. Underpricing occurs and leads to consistent contract cost overruns due to diminishing returns the firm experiences in management talent and other resources. This can partially explain why the industry is constantly under political pressures and the government is constantly developing new legislation that generally diminishes rather than expands competition.

c. Subsidy Issue

Although not as popular today as in the near past, public subsidy for production and test facilities of domestic defense companies significantly complicates the buyer–supplier relationship. By subsidizing facilities, the government bound itself to a particular firm that creates in the long run a "situation of an automatic tendency toward self-perpetuating monopoly" (Agapos, 1971, p. 46). From the government's point of view, it becomes justifiable to award follow-on contracts to the subsidized firm instead of moving the already publicly-funded high-value facilities to other contractors. Once the government commits its to a contractor, the former is forced to continue working with the latter, which severely limits the competition and establishes a monopolistic pattern.

This situation puts the other competitors, especially smaller contractors, in a very disadvantageous position. Even if the subsidized firm cannot get follow-on government contracts, theoretically the company still has a privileged status having all these facilities or least an expertise and experience in operating with them. In the long run, the subsidy option develops a monopolistic environment (Agapos, 1971, p. 46).

The strong position of the larger defense companies is affirmed by their ability to wait out poor times and conserve working capital until they win new contracts. The

ability for the larger firms to anticipate additional work in the future places an undue hardship on the smaller firms and forces them out of the market.

If subsidizing defense business leads to the limitation of competition, what makes the governments use this practice even today? The uncertainties associated with the defense market and some other limitations create difficulties for defense contractors to attract capital from the private sector. Financial markets are sometimes reluctant to accept the risks associated with the ROI in defense markets. Thus, public subsidies can play the role of private equity capital whose availability for defense companies is much more limited.

Since the development of a defense good is a highly technical and scientific business, drawing capital for R&D activities is crucial (sometimes even a matter of survival) for any defense firm. This has led some experts to claim that despite the competition distortion, the public "subsidization [of the defense industry] must continue" (Agapos, 1971, p. 47). However, the globalization process after the end of the Cold War has facilitated easier access to foreign defense markets and to investment capital that drives a lot of governments to abandon substantial subsidization of the domestic defense industry.

2. US Experience and Procurement Strategies to Increase Competition

In the relationship between government and defense industry, the price system does not assure a high degree of competition mainly because of the technical and economic factors mentioned previously. Given these inherent inconsistencies, developed countries are constantly striving for new methods of stimulating competition in defense markets. Although still relevant today, this problem had been identified much earlier. A typical example is the U.S. legal framework introduced during the 1960s due to the government's commitment to the optimization of defense resource allocation. The U.S. government introduced several procurement methods in order to maintain an adequate level of competition and a level playing field:

- Direct Technology Licensing (DTL) sought to minimize monopoly powers of sole source contractors when follow-on contracts are to be awarded. A contractor in the initial contract could acquire monopoly power through

the experience and know-how gained as the developer and first producer of a unique technical product. Competitors could gain the knowledge and experience on their own, but the initial contractor was much further ahead. The licensing clause, which would be written into the contract, would allow the initial contractor (the licensor) to collect royalties and technical assistance fees in exchange for making the new winner of the follow-on contract a licensee. The licensor would provide the winner with manufacturing data and technical assistance that the licensor gained during the tenure of the original contract. The main objective of the licensing technique was to increase competition at re-procurement time.

- Second Sourcing Method (SSM) was used to obtain competition at the procurement level. The developing contractor furnished the government with drawings, specifications, and other technical information in which it performed enough systems engineering to validate the cost data and transferred at least some of the contract to new suppliers.

- Total Package Procurement (TPP) was a method used to exercise competition at the weapon development phase. This approach used an elaborate product definition such that uncertainties could be resolved to a point where a single contract was used for the entire program. The contract award was made on a price competition basis. With TPP, all procurement dollars were spent in a competitive environment, but a single contractor had responsibility for the coordination and completion of the entire program, which included follow-on contracts.

Previous analyses showed that none of these three procurement methods alone was perfect. Indeed, some of them could even create more troubles than cures for initial competition problems. In the case of DTL, the government would again limit competition rather than stimulate it, by forcing more inefficient and trouble-laden legislation on the defense industry. In reality, this procurement method could place the industry in a quasi-cartel operation in that technical information would float back and forth by both the licensee and licensor's scientific personnel, which would be shifting from contractor to contractor as new contracts were licensed. Thus, rather than alleviate a problem, the legislators would create an even greater one of determining where the final resting place for trade secrets lie and adding political fodder for politicians and subcommittee hearings.

Although the second method, SSM, provided some form of competition during the initial production phase or follow-on production, it carried the risk for the original source to drop out of the program later when the award went to a new supplier. At least

this method would create the possibility for the original and second source to overlap in time. The strategy had the advantage that only one development program took place, yet competition was obtained sometime during the production phase.

There were additional disadvantages in using SSM. First, the government had to engage extensive system engineering and technology control so that the design could be given to a second source. This was an expensive process and required a significantly skilled staff, which the government many times did not have. Secondly, there was duplication of tooling and production lines, which could make costs prohibitive if production runs were short and couldn't absorb the added costs.

The main problem with the third strategy, TPP, was related to the technology and contract uncertainties that should be resolved before the contract package was awarded (Agapos, 1971).

D. DEFENSE MARKET'S BASIC TRADE-OFF: EFFICIENCY VS. COMPETITION

The government's procurement strategy remains a basic determinant to the degree of competition in the defense industry. Each of the three procurement strategies—DTL, SSM, and TPP—had specific merits but also limitations. None of them alone was able to succeed in increasing market competition. Excess capacity, personnel, and resources led to inefficiency and large overhead costs, which in the end shifted to the monopsonist in terms of costs overruns (Agapos, 1971). Given the specific nature of the defense goods, in many cases the financial risk for the development of a new major weapon system or a platform had been "borne by government which often financed R&D and in some cases provided investment in capital and infrastructure" (Dunne, 2009, p. 15).

In addition, the government–defense industry relationship was adversely affected by over-regulation, conflicting regulation, ineffective administration of price, and cost controls. As the strategies became more refined and complex, the government experienced more cost overruns and difficulties, which increased the cost of doing business with the defense industry. It became clear that some changes in government policy and objectives had to be made in order to maximize the efficiency of the allocation

of resources and minimize the cost involved to get an effective defense system. The U.S. government attempted to solve these adversities by driving the defense industry to industrial concentration, but without the benefits and profitability associated with monopolistic exploitation.

At the same time, even during the Cold War the concept associated with the complex defense industry moved gradually to the position that future wars would "be fought with existing weaponry or those in the process of being developed, rather than maintaining a mobilization base ready to produce war goods" (Agapos, 1971, p. 51). This meant that no guarantee could be granted to the defense manufacturers of their permanent existence. Companies that could hardly compete on the defense market should pursue diversification to commercial products.

In most cases, it proved much easier to state than to implement successfully such corporate policy for diversification. Much before the end of the Cold War, many U.S. defense firms had been already suffering from excess capacity and low profit margins. Being high-cost producers, these firms were not able to compete on the commercial markets. Diversifications into civilian areas proved disastrous to many defense companies. On the one hand, they had neither the marketing nor the management capabilities necessary to successfully compete in the commercial marketplace. On the other hand, their financial structure did not allow them to sustain large-scale commercial undertakings (Agapos, 1971).

With the end of the Cold War and the fall in demand for defense goods, even the United States' ability to maintain a domestic defense-industrial base was put into question. In 1993, the most significant change in U.S. industrial policy occurred when the government openly encouraged the consolidation of defense companies (Dunne, 2009). However, this policy did not last long due to the accelerating M&A process that threatened to eliminate completely the already fragile competition in the domestic defense market. In 1997, "the DOD decided it had gone far enough and blocked the merger of Lockheed Martin with Northrop Grumman" (Dunne, 2009, p. 17).

As the industry stands now, there is a concentration of five mega defense companies—Boeing, Lockheed Martin, Northrop Grumman, Raytheon, and General Dynamics. The consolidation in the United States greatly reduced the competition in the domestic defense market and concentrated the production of specific defense platforms or systems in just one or two mega-manufacturers. These companies can shift their bargaining power in terms of cost in the government–industry environment so that long-run costs to the government become higher. Still, it is expected that the core of the government's defense policies should be based on the economic belief that competition will generate a mix of products and services best suited for national requirements at the lowest feasible price. It has been apparent in the past that efforts to foster competition have yielded conflicting results (Agapos, 1971). The economic paradox is that increasing competition in the defense market usually faces an important trade-off—it leads to a decrease in the defense industry's efficiency, and the other way around.

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IV. EVOLUTION OF THE EUROPEAN DEFENSE PROCUREMENT LAW

For more than 40 years after the failure of the European Defence Community project in 1954, defense and security matters were excluded from the process of European integration. This was true not only of European defense policies and armed forces, but also for market and industry issues. As a consequence, defense markets in the European Union remained de facto outside the Internal Market and fragmented at the national level.

Since the end of the Cold War, this fragmentation became increasingly problematic. Facing a combination of budget constraints, rising costs for military equipment and the restructuring of the armed forces, national markets in Europe became often too small to produce and procure high quality equipment at affordable prices. This is the case in particular for complex equipment that involves high costs for research and development. Far-reaching reforms have thus become indispensable for Europe to maintain a viable European Defence Industrial and Technological Base and equip its armed forces adequately. In this context, the establishment of a competitive European Defence Equipment Market was recognized as particularly important.

A. THE DEBATE OVER THE NEED FOR A LEGAL FRAMEWORK FOR DEFENSE PROCUREMENT

Following the development of the ESDP, the EU has become the main framework for action to achieve t a competitive European Defence Equipment Market. A major step forward was the establishment of the EDA in 2004. As an agency of the European Council, the EDA is supporting member states' efforts to develop the military capabilities required for a viable ESDP. By focusing on the demand side of the market, the EDA put effort in particular into harmonizing military needs, pooling research efforts, and fostering European armaments cooperation.

Complementing member states' efforts, the European Commission also launched an initiative to support the establishment of an EDEM. In its communication "Towards a

European Defence Equipment Policy" of March 2003, the Commission presented a series of proposals for action in areas related to defense industries and markets (standardization, EDTIB monitoring, intracommunity transfers, procurement rules, dual-use exports, and research). This document was thus the starting point for the Commission's activities in the field of defense procurement (European Commission, 2003).

In 2004, the Commission organized several workshops with representatives from government and industry to collect information on current defense procurement practices and to identify the expectations of the stakeholders for possible action in this field. These workshops prepared the ground for the Green Paper on Defence Procurement, adopted in September 2004. This green paper itself was represented as one of the measures, through which the Commission intended to contribute to the gradual creation of EDEM. A European defense market "which is more transparent and open between member states and which whilst respecting the sector's specific nature would increase economic efficiency" (European Commission, 2004, p. 3).

The consultations that followed the green paper confirmed that the existing legislative framework for defense procurement in Europe was deficient. The existing public procurement directive 2004/18/EC (PPD) had been applied to public contracts in the field of defense subject to Article 346 of the TFEU. According to participants in the consultations, this framework was not functioning properly, mainly for two reasons:

- Uncertainties that persisted regarding the use of Article 346 allowed member states to derogate from EC rules (laid down in the PPD) if this was necessary for the protection of their essential security interests. Since the scope and the conditions for the use of the exemption were vague, the application of Article 346 to defense procurement would remain problematic and vary considerably between the member states.

- The PPD was generally considered ill-suited to many defense contracts, since it did not take into account some special features of those contracts. As a result, many member states were reluctant to apply the PPD for defense procurement and tried to interpret Article 346 as broadly as possible in order to exempt defense contracts from EC rules.

To tackle these two problems, the Commission announced in December 2005 two initiatives:

- Adoption of an interpretative communication on the application of Article 346
- Preparation of a possible new directive on defense procurement tailored to the specificities of defense contracts.

This two-step approach allowed a measured reaction to the issues raised. Within a fairly short time period, the Commission would be able to consult on and produce guidance for member states on the use of Article 346 TFEU, which could then be put to immediate use. A longer time frame would be needed to give appropriate consideration and discussion before deciding about further legislative action, which, if proposed, would itself require time to prepare, adopt and transpose into the national legislation of the member states. The interpretative communication was adopted on December 6, 2006, after intensive consultation of industry and member states. Explaining the conditions for the use of Article 346, the communication gave guidance to national contracting authorities for their assessment of whether procurement contracts can be exempted from the community law or not. In order to cope with the second problem identified in the green paper consultation, the Commission continued to prepare in parallel a possible new directive suited to the specificities of defense.

Between December 2006 and April 2007, member states gave their input on the scope and the content of a possible directive, and the discussions helped to identify why current EC rules were deemed ill-suited to defense procurement, what the field of application of a possible new community instrument should be, and what the main problematic issues were and how they should be dealt with. The Commission had numerous bilateral discussions with member states and the EDA. Industry was also involved, in particular via meetings with national and European associations. Throughout this consultation process, stakeholders contributed in a constructive way to the Commission's work, giving valuable input both for this impact assessment and for the proposal itself. No stakeholder, and in particular no member state, has shown opposition on the principle itself of the exercise.

Governments and industry were also consulted in the framework of impact assessment. In this context, five studies were commissioned, in particular to collect more

quantitative information. Three studies were commissioned from the College of Europe to: (a) analyze the defense budgets of ten member states, categorizing spending by sectors and products, (b) examine the "Tenders Electronic Daily" (TED) in order to assess the extent to which contracting authorities use the Official Journal of the European Union (OJEU) for the publication of defense contract notices, and (c) assess how many and which defense contract notices are published only at the national level.

Two further studies dealt with economic and market aspects. The first one, conducted by Rambøll Management (Denmark), provides facts and figures on the supply base in Europe, examines procurement practices in the EU and attempts to measure the administrative burden of new procurement rules for both companies and contracting authorities. The second study, by Yellow Window (Belgium), is a market study that establishes a categorization of defense products and tries to measure the economic impact of the new procurement rules on defense markets and in particular on cost-savings for each type of product.

The present report is based both on the findings of the five above-mentioned studies and on the consultation the Commission has organized with member states and industry since the beginning of 2004. The dialogue the Commission has carried out with stakeholders for several years has made it possible to collect a great deal of qualitative information on defense markets and procurement practices. The studies outsourced in order to obtain economic and financial information, by contrast, could not always deliver the expected results.

B. IMPACT ASSESSMENT OF A DEFENSE PROCUREMENT DIRECTIVE

One of the basic references for explaining the logic behind the EU Defense procurement directive 2009/81 (DPD), including the principle need for it, was the Commission Staff Working Document accompanying the directive proposal (European Commission, 2007). This document provides not only a revision of the Commission's action and initiatives in the area of the EDEM so far, but also an analysis of the specificities and problems of the market. The paper was significant because it identified

what the Commission staff considered as the main cause of the problem, as well as the suitable actions for addressing it.

1. Problem Definition

The Commission's principle understanding of the defense markets did not depart highly from the theory; however, it assumed a quite broad definition of the term defense market—it would "cover a broad spectrum of products and services, ranging from non-war material, such as office equipment and catering, to complex weapon systems (tanks, fighter aircraft, aircraft carriers, etc.) and highly sensitive material, such as nuclear, biological and chemical equipment" (European Commission, 2007, p. 9). This broad definition was more or less focused on who would buy (i.e., everything bought and consumed by the military would be qualified as part of the defense market) rather than what would be the purpose of the good or service delivered. The second question would allow an isolation of the purely warlike materials (weapon systems, armaments, ammunitions, etc.) from other non-war material. Although this clarification may seem of little importance now, it plays a significant part in further explanations of the EC's logic.

The Commission made an important point about the existing issues with the defense equipment's sensitivity: it could vary depending on political and military circumstances of the member states and it would be proportional to the technological and strategic importance of the specific equipment. Weapon systems at the upper end of the technological spectrum are normally the most expensive for several reasons—they are often developed for the specific requirements of a small number of customers, have normally long development and life cycles, high non-recurring costs, and require government financial support at least in the R&D phase (European Commission, p. 9).

Further, the Commission admitted the dominant role of the governments for shaping the defense market that would be highly visible in three particular directions:

- As a sole client, the government determines the demand for defense products and thus defines both the size of the market and the technological portfolio of the industry.
- As a regulator, the government controls arms trade and thus is able to facilitate or limit export opportunities of the defense manufacturers.

- As an owner or shareholder (and/or by holding "golden shares"), the government is able to influence strategic business decisions of the company. At least, the state controls the process of industrial restructuring.

Therefore, the stagnating defense expenditure of the EU member states during the last few decades led to devastating effects for both the armed forces and defense industry. The dramatically increasing development costs of new weapon systems and the lack of corresponding funding increased the capability gaps of the European military and damaged the capacity of the EDITB to "prepare for the future and to remain competitive vis-à-vis U.S. counterparts" (European Commission, p. 10).

The relatively small size of European defense markets makes the existing fragmentation along national lines increasingly problematic at all levels:

- The demand side of the market remains weak because EU member states are unable to pool their purchasing power into common procurement.

- The supply side of the market is highly dependent on the dominating national political and security concerns of the European governments. Despite the consolidation processes in some defense industrial sectors (most visible in the aerospace and electronics), market fragmentation limits the rationalization of defense industry and its ability to exploit potential economies of scale.

- The regulatory framework composed by so many national rules and procedures represents another significant challenge for both the demand and supply side—it limits both competition and cooperation, and thus creates considerable extra costs for government and industry.

If the analysis expands further to include the public procurement related to security (non-defense) needs, then the situation with defining European demand becomes even more complicated. Unlike defense, where the buyers (and users) are easy to identify, the security sector encompasses many relatively independent governmental agencies (such as police forces, intelligence services, homeland security, border security, and so on) whose organization and significance may highly vary in different member states. Although the security sector was not the main focus of the Commission's analysis, its importance for the European defense industry and market should not be underestimated. The change in the nature of global threats after the end of the Cold War might have been hardly expected by a lot of observers; however, after 9/11, transnational and asymmetric

threats were put on the security agenda of most governments and regional security organizations. And against these new types of threats, security forces increasingly use equipment which from a technological point of view is at least similar to the equipment used by the armed forces. Therefore, today it is not that easy to distinguish precisely military from non-military security because of the blurred dividing line between both.

Based on the conclusions in the green paper that the existing EU procurement law was generally ill-suited to many defense contracts, the Commission began drafting the new specialized DPD. In the end of 2007, the draft of the new DPD was tabled for discussions.

2. The Need for Flexibility

The need for flexibility in defense procurement is presupposed due to the inherent purpose of any weapon acquisition—its absolute goal is to gain superiority over potential enemies. For the world's most developed countries (among them some of the leading EU member states), it usually includes acquisition of state-of-the-art technologies integrated at various levels into complex architectures.

Another reason for more flexibility lies in the interoperability requirements with the armed forces of other NATO and EU members, which have usually been achieved through application of common defense-related standards (European Commission, 2007, p. 15).

The The long life cycle of defense equipment (which sometimes may last as long as 50 years) requires a lot of activities and arrangements along with the actual procurement, such as regular maintenance and technological upgrades.

The above mentioned considerations carry high financial risks and make it often impossible to assess the exact total price of a program, including the life cycle costs.

The existing public procurement directive could not offer the flexibility needed for defense procurement. First, it did not recognize specific standards developed for defense purposes. Second, the PPD's open and restricted procedures were based on the

assumption that the contracting authority was able to specify the technical requirements and the price of the contact from the outset of the procedure.

The PPD's competitive dialogue procedure could compensate to some degree the limitations of the open and restricted procedures in terms of the lack of distinctness about the technical requirements and the price of the contract. However, it did not cover all of the complexity of defense procurements, such as negotiations about the lead times, costs, risk-sharing, intellectual property rights (IPR), maintenance, upgrades, subcontracting, and the like. A more detailed negotiation process between the contracting authorities and economic operators prior publication would be justified only in the event of irregular tenders and in exceptional cases where prior overall pricing is not possible. However, this PPD's provision could hardly satisfy defense procurement needs for flexibility where negotiations are needed not only for defining the overall pricing.

3. The Importance of the Security of Supply and Security of Information Issues

The EC recognized security of supply as "one of the major specificities of defense procurement [… because] the adequate and timely supply of defence equipment is crucial for the effectiveness of military power" (European Commission, 2007, p. 17). In principle, SoS includes many aspects ranging from the supplier's capacity to deliver defense equipment to political considerations of the purchasing country. The issue becomes even more important in times of war or crisis where suppliers need to meet additional urgent demands for accelerated deliveries.

The security of supply is not only a matter of technical capacity, but it also includes political and security considerations because the defense-related transfers are subject to export regulations. Export authorization for defense equipment is a matter of national policy and regulation, and countries purchasing weapons from a supplier established abroad always carry the risk of delayed or refused delivery. What will probably turn into a classic example for an SoS risk is the delayed delivery of the Mistral-class helicopter carriers made in France for Russia because of the latter's involvement in

the Ukrainian crisis. The question of SoS becomes even more complex when a weapon system is being produced in more than one country.

Security of information is another important feature of many defense and non-defense security contracts that has not been covered by the PPD. The requirements for confidentiality and exchange of classified information presuppose specific measures for the protection of this information against unauthorized access. The PPD treats only the protection of commercial confidential information (such as trade or technical secrets), but not the protection of the information provided by the contracting authority.

As a result of these deficiencies of the exiting EU public procurement legislations, the EU member states tried to handle the problems their own way. The ultimate effect was that there existed a variety of national regulations and practices for conducting defense procurement, as most of them used the exemptions provided by Article 346 of the TFEU. The differences in these national practices and regulations affected negatively the level of transparency (in terms of the publication of contract notices and procedure selection), non-discrimination principle (frequent misusage of SoS, SoI, offsets, and others as selection criteria to give advantage to national economic operators), and the degree of interoperability (in terms of the required standards and technical specifications). Ultimately, this lack of transparency and openness resulted in widespread discriminatory rules practiced across Europe. The conclusion of the European Commission was that if this situation persisted, member states would increasingly face difficulties in maintaining a sound and viable EDTIB and developing the military capabilities necessary for implementing the ESDP (European Commission, 2007).

4. Basic Objectives of a Common Defense Procurement Legislation

Along with the draft directive proposal, the EC clearly defined its objectives, which it categorized as the general objective, specific objective and operational objective. The general objective was to establish an open and competitive EDEM in support of the ESDP. The core of EDEM would be military segments, but it would cover also non-military security segments. In an ideal situation, it was expected both the supply and demand sides of the market would benefit from an open and competitive EDEM. The

suppliers would gain a much larger "home market" and would be encouraged to restructure across national boundaries, reduce duplications, and create centers of excellence. Driven by the competition, defense companies would optimize their production capacities and lower costs. For the governments, this could reflect in optimization of the public savings allocated for defense.

However, the Commission was more cautious about the demand's benefits. It recognized that the governments would have a more important role to play—"[a]s sole customers of defence equipment, it is for Member States to reform the demand side of the market, and the establishment of the EDA in 2004 illustrates their political determination to do so" (European Commission, 2007, p. 31). The Commission limited its own role to supporting the member states' efforts, "in particular via the establishment of a more coherent regulatory framework" (European Commission, 2007, p. 31).

The specific objective of the new legislation included a functioning defense procurement legal framework at the EU level that effectively implements the principles of the Treaty for the Internal Market. This was a tipping point for the long-lasting European consensus delimiting the defense business of the member states from the internal market.

The operational objective of the new defense procurement directive (and implicitly of the intracommunity transfers directive) is to limit the use of the exceptions (mainly provided by Article 296/346 of the Treaty) and become the legal basis for the awarding of "the majority of contracts in the field of defence and security, including those for the procurement of arms, munitions and war material" (European Commission, 2007, p. 31). As it becomes clearer in the later analysis, this does not necessary mean that most of the defense procurements as an absolute value will be awarded on the basis of the new EC rules.

C. MAIN PILLARS OF THE DEFENSE PROCUREMENT DIRECTIVE

Some legal experts argue that economic analysis of a law seeks to examine two basic issues of legal rules: (a) the effects of legal rules on the behavior of relevant actors; (b) whether these effects of legal rules are socially desirable, or not (Kaplow & Shavell,

1999, p. 1). Applied to the current context, this section will focus mainly on the scope and innovative provisions of the defense procurement directive, and how the latter are expected to affect the behavior of the EU member states when doing defense procurement. The second issue of the new defense procurement rules (i.e., whether this new law is "socially desirable" by the member states, or not) will be subject to analysis in the next chapter.

1. Field of Application

The full title of the defense procurement directive speaks for itself; the scope of the directive covers "the award of certain work contracts, supply contracts and service contracts […] in the field of defense and security" (European Parliament and the Council of the European Union, 2009). As a principle, defense and security contracts not covered by this directive continue to be subject to the so-called public procurement directives 2004/17/EC and 2004/18/EC.

The DPD is applicable to contract awards made by contracting authorities or entities (further in the text interchangeably referred to as "buyers" for simplicity) which are the state, regional, or local authorities governed by public law [… and] not having an industrial or commercial character (Directorate General Internal Market and Services, 2010a, p. 3).

The scope of the defense procurement directive covers four categories of contracts in the field of defense and security:

- Supply contracts for military equipment, including any parts, components, and/or subassemblies
- Supply contracts for sensitive equipment, including any parts, components, and/or subassemblies;
- Works, supplies and service contracts directly related to the equipment mentioned above for any and all elements of its life cycle;
- Works contracts and services contracts for specifically military purposes or sensitive works and sensitive services (European Parliament and the Council of the European Union, 2009, p. Article 2).

However, EC directives, being part of the secondary law, are subject to both the EU primary law (that consists of the Treaties of the EU) and the international agreements concluded by the Union. Thus, secondary legislation is the next level down in the hierarchy of the Union law and is valid only if it is consistent with the acts and agreements that have precedence over it (European Parliament, 2014).

Therefore, the application of the defense procurement directive is subject to the exceptions provided by the TFEU, in particular Articles 36, 51, 52, 62, and 346 TFEU (ex Articles 30, 45, 46, 55 and 296 TEC). Among these exceptions, Article 346 TFEU is the most relevant to the defense context Treaty-based derogation that allows member states to award some contracts without applying the defense procurement directive. The basic condition to invoke Article 346 refers to measures that member states consider "necessary for the protection of the essential interests of its security" or "information the disclosure of which it considers contrary" to those interests (European Union, 2012, p. Article 346). Member states alone are sovereign and responsible to define their essential security interests.

For many years, Article 346 was considered "a provision delimiting the competences of the EU—and setting out the boundaries between the EU's and its member states' domains" (Randazzo, 2014, p. 1). Member states used Article 346 to exclude automatically their defense procurement from EU law. Today, in light of the well-established case law of the ECJ, Article 346 is neither an automatic exclusion of defense from EU law, nor a provision limiting EU competence. Two sets of conditions must be met if a member state decides to invoke Article 346:

- The first condition is related to the material scope. Article 346 is limited to measures related to the products in the list adopted by the council on April 15, 1958, and intended for exclusively military purposes.

- The second condition is about the necessity and proportionality of the member state's specific measure for the protection of its essential security interests. Member states have first to identify the "essential security interests" they intend to protect and then to prove that the specific measure (justified on the basis of Article 346) is necessary in order to protect such vital security interests (necessity test). Member states must make a credible case that the interest at stake is a security (not an economic) one, and that it can be defined as essential. Furthermore, member states have to

demonstrate that the objective of protecting its essential security interests cannot be achieved through less restrictive means (proportionality test).

Therefore, Article 346 must be interpreted strictly and applied in exceptional and clearly defined cases when even the tailor-made defense procurement directive cannot guarantee the protection of essential security interests of the member states (Randazzo, 2014).

2. Security of Supply

The defense procurement directive introduced an important provision about the security of supply (European Parliament and the Council of the European Union, 2009, p. Article 23). As a typical feature of the defense and security procurements, the SoS addresses buyer's concerns related to the reliability of the awarded suppler and covers a wide range of different industrial, technological, legal, and political aspects. In a broad sense, the SoS can be defined as "a guarantee of supply of goods and services sufficient for a [… s]tate to discharge its defence and security commitments in accordance with its foreign and security policy requirements" (Directorate General Internal Market and Services, 2010b, p. 1). SoS includes the ability of the state to use its armed forces with appropriate national control and, if necessary, without third party constraints, particularly in times of crisis, when reliable and in-time delivery can literally be vital.

Given the long life cycle of most defense systems and equipment and the need for their long term logistic support, upgrades, modernization, etc., SoS is particularly challenging. The directive provides for different possibilities to assess a candidate's or tenderer's ability to meet SoS requirements. Depending on the phase of the award procedure, SoS requirements can be applied in different ways. First, they are used to select suitable tenderers and candidates, then to examine whether the tenders meet the mandatory SoS requirements set by the contracting authority/entity, and finally, to evaluate, on the basis of specific contract award criteria, which tender offers the best performance in terms of the SoS (Directorate General Internal Market and Services, 2010b, p. 4).

a. Security of Supply in the Selection of Suitable Candidates and Tenderers

Article 39 of the DPD provides an exhaustive list of cases that may serve as grounds for exclusion of candidates or tenderers. While the first paragraph contains mandatory exclusions related to convictions by final judgment of certain offenses (such as participation in a criminal organization, corruption, fraud, terrorist offenses, money laundering, and the like), the second paragraph gives the contracting authority a margin of discretion in deciding whether to exclude candidates or tenderers who have committed specific forms of professional misconduct (such as breach of obligations regarding SoS during previous contracts, found not necessarily reliable to exclude risks to the national security of the contracting member state).

Another important criterion in the selection process includes technical and/or professional ability. The contracting authority may require candidates to meet minimum capacity levels and if it decides to limit the number of suitable candidates, it can use the minimum levels of ability as the basis for a candidate's ranking (European Parliament and the Council of the European Union, 2009, p. Article 38).

b. Security of Supply in the Assessment of Tenderers

Article 23 contains a non-exhaustive list of particular propositions which the contracting authority may use for the assessment of the tenderer's contract performance. The first proposition covers a safeguard against SoS risks related to the cross-border movement of defense equipment, including possible refusal, withdrawal or delay of relevant export, and transfer authorizations.

The second proposition is related to existing restrictions on disclosure, transfer, or use of components and subsystems that are part of the equipment purchased, but that cannot be accessed or modified by the customer. The early disclosure of such restrictions is vital for the contracting authority, and therefore it may require from the tenderer to demonstrate the ability to obtain the necessary export, transfer, and transit licenses in order to fulfil the mandatory contractual obligations.

The third proposition concerns the ability of the tenderer to comply with the contact requirements given the organization and location of his supply chain. While the geographical location of the tenderer's facilities within the territory of the EU can hardly play any important role except in terms of distances and delivery times (nationality discrimination within the EU is not admissible), the situation looks different if the tenderer's supply chain is established in or dependent on third countries. To protect security interests, the contracting authority may require the tenderer to use only reliable sub-contractors from allied countries.

The fourth proposition is related to possible additional needs of the buyer that may occur in a crisis situation. The contracting authority may require the tenderers to establish and/or maintain production capacity in order to cover these additional needs.

The fifth proposition allows requiring a commitment from the tenderer to carry out the maintenance, modernization or adaptation of supplies covered by the contract.

The sixth proposition includes a commitment from the tenderer to inform the buyer in due time of any change in its organization, supply chain or industrial strategy that may affect its obligations to that buyer. The last proposition addresses risks resulting from the ceasing of production of military or security equipment. The buyer may ask for a commitment that would allow him to obtain all specific means necessary for the production of the equipment.

3. Security of Information

One of the main characteristics of the defense and security procurement is the confidentiality that accompanies (partly or as a whole) many defense-related contracts, where the ability and the reliability of suppliers to protect classified information are crucial for their award and execution.

In the EU, there is no common regime for security of information, and in many cases, member states have bilateral or other appropriate security agreements concerning the mutual recognition of security clearances. Still, these security clearances are not automatically recognized by other member states, and it is up to each member state to

determine which information is to be classified at which level of confidentiality, and each member state grants its own national security clearances certifying a supplier's capacity to protect classified information.

This lack of EU-wide regime for security of information (SoI) hampers the openness of defense and security markets in Europe. Although no alternative could fully compensate for the absence of such common regime, the defense procurement directive introduces various innovative safeguards concerning SoI. And because the protection of classified information is important through all phases of a contract, the directive introduces a set of provisions that addresses SoI issues from the beginning of the award procedure until the execution of the contract (Directorate General Internal Market and Services, 2010c).

a. General Principle

One of the directive's general SoI principles allows buyers (contracting authorities) to impose requirements on the suppliers that are aimed at protecting the classified information communicated throughout the tendering and contracting procedure. The buyers can also request that the primary suppliers ensure compliance with such requirements by their subcontractors. Article 7 addresses precisely this basic concern of the buyers that any classified information in the contract documentation dispatched to the selected candidates will be duly protected by them on the basis of a pre-contractual commitment.

b. Criterial for Qualitative Selection

In defense contract awards, reliability and the ability to guarantee SoI is one of the key criteria for a qualitative selection in which the buyers have to evaluate the suitability of candidates on the basis of exclusion criteria and criteria relating to economic and financial standing and professional and technical knowledge or ability (European Parliament and the Council of the European Union, 2009, pp. Articles 39-46). This evaluation should be distinguished from the assessment of tenders in the contract award phase and "is strictly limited to the suitability of the economic operators and concerns therefore only their standing, ability and reliability as such, not the products and

services they propose for execution of the contract" (Directorate General Internal Market and Services, 2010c, p. 2).

c. Grounds for Exclusion

Grounds for exclusion of candidates and tenderers due to non-conformity with the SoI requirements follow the same logic as the security of supply (See 4.2(a) of the current chapter.). The lists of such grounds provided in Article 39 are exhaustive. The same article refers explicitly to breaches of SoI obligations during previous contracts (European Parliament and the Council of the European Union, 2009, p. Article 39(2)(d)) and to the reliability of candidates and tenderers (European Parliament and the Council of the European Union, 2009, p. Article 39[2][d]). In general, this reliability depends on their ability to respond to requirements imposed by the contracting authority with respect to SoI (European Parliament and the Council of the European Union, 2009, p. Recital 67); however, the reliability of candidates or tenderers may also depend on factors other than their ability to protect classified information. The directive clarifies that the candidates or tenderers must be sufficiently reliable so as to exclude risks to the security of the member state (buyer), and such risks could derive from certain features of the products supplied or from the shareholding structure of the candidate (European Parliament and the Council of the European Union, 2009, p. Recital 65).

d. Technical and/ or Professional Ability

Criteria for technical and/or professional ability of the candidates/tenderers for contracts involving, entailing and/or containing classified information are provided in Article 42(1)(j), which requires evidence of the ability to process, store, and transmit such information at the level of protection required by the contracting authority/entity. Due to the lack of a common SoI regime and of harmonization of national security clearance systems at the EU level, member states may provide that this evidence has to comply with the relevant provisions of their respective national SoI laws. However, the only evidence of a candidate's ability to handle classified information at the level of protection required is a facility security clearance granted by its own national security authorities under the relevant national rules. To handle the absence of an EU SoI regime, member

states have bilateral security agreements or arrangements concerning the equivalence of security classifications and security requirements, such as security clearances for a company's facilities or personnel. In these cases, the directive requires that member states shall accept security clearances granted by national security authorities of another member state as evidence of a candidate's capacity to ensure the security of classified information is in accordance with national security laws and regulations and the bilateral agreements or arrangements.

At the same time, the contracting member state retains the possibility to conduct and take into account further investigations of its own, if considered necessary (Directive 2009/81/EC, p. Article 42[1][j]). Even where such bilateral agreements exist, the capacities of candidates from other member states as regards SoI can be verified, and "such verification should be carried out in accordance with the principles of non-discrimination, equal treatment and proportionality" (Directive 2009/81/EC, p. Recital 68).

Article 42(1)(j) further provides an important provision in terms of improving market access for newcomers and broadening the defense and security supplier base to include non-established players. It envisions the possibility for the contracting authority, where appropriate, to grant candidates that do not yet hold security clearance additional time to obtain such clearance.

The SoI legal provisions of the defense directive may offset to some extent the negative impact of a lacking common SoI regime and in particular to help member states to evaluate the technical and/or professional ability of the candidates. However, the only evidence for this ability will be security clearances granted by the national authority of the member state where the candidate is established. In practice, it looks difficult (if not impossible) to establish minimum requirements or ranking of the candidates in terms of meeting the SoI requirement. The only relevant question about the SoI is thus limited to whether the security clearances (granted to the candidates by their own national authorities) are recognized or not by the contracting member state.

e. Contract Performance

Article 20 of the directive provides member states with the possibility to lay down special conditions relating to the performance of a contract, provided that these are compatible with community law and are indicated in the contract documentation. In terms of the SoI, this means that member states, even when seeking to ensure the SoI, cannot set conditions that are directly or indirectly discriminatory (Recital 41). Therefore, the defense directive requires contracting authorities to provide all tenderers with a sound basis for the preparations of their tenders (Directorate General Internal Market and Services, 2010c, p. 7).

The DPD provides contracting authorities with a useful tool to get a firm commitment not only from the tenderer, but also from subcontractors to protect the classified information received in relation with the contract (European Parliament and the Council of the European Union, 2009, pp. Article 22[a], [b]). In addition, the contracting authorities are able to verify the reliability of not only the main contractor, but the subcontractors as well, as they may require tenderers to submit information on their subcontractors.

f. Procedural Aspects

Procedural aspects of security of information provided in the DPD are important for ensuring both non-discrimination of the candidates and the protection of public interest of the contracting authorities. On the one hand, the contracting authority must (upon written request) inform unsuccessful candidates/tenderers of the reasons for their rejection (European Parliament and the Council of the European Union, 2009, p. Article 31[1]), and on the other hand it can withhold certain information on the contract award (including reasons for the exclusion of a candidate or the rejection of a tender) in cases where full transparency might conflict with the security of classified information, especially when such decisions are based on information from protected sources (European Parliament and the Council of the European Union, 2009, p. Article 31[3]).

4. Subcontracting

The subcontracting provision (Article 21) is considered to be one of the “defence-specific innovations of Directive 2009/81/EC” (Directorate General Internal Market and

Services, 2010d, p. 1) that allows contracting authorities to require from the successful tenderers to subcontract a certain share of the main contract and/or put proposed subcontracts out to competition. It sets basic rules for the fair and transparent awarding of such subcontracts.

The basic argument for the introduction of such a provision lies in the assumption that EDEM's competition should not be limited to the level of prime contractors, but all defense companies including the smaller suppliers and SMEs should benefit from it.

This Directive 2009/81 subcontracting provision offers to the member states four different options:

- The successful tenderer determines how much, which parts, and to whom to subcontract—the contracting authority limits itself to verifying reliability and security of the supply chain.
- The successful tenderer determines how much and which parts to subcontract—the contracting authority decides which subcontracts to award in competition.
- The contracting authority decides how much (may not exceed 30% of the main contract value) to subcontract in competition—the successful tenderer decides which parts to subcontract in competition.
- The contracting authority sets a minimum percentage to be subcontracted in competition and, in addition, imposes competition for subcontracts that the successful tenderer intends to award on top of the minimum percentage (European Parliament and the Council of the European Union, 2009, p. Article 21).

While the directive concedes the buyers with these options for requiring subcontracting of a share of the main contract, it sets out some important limitations to the contracting authorities:

- The subcontracts must be based on the principle of non-discrimination. They must be awarded in accordance with the specific rules set out in the directive, as the buyers may not require the successful tenderer to award subcontracts to specific subcontractors or to subcontractors of a specific nationality.
- The range of percentages defined "shall be proportionate to the object and value of the contract and the nature of the industry sector involved, including the level of competition in that market and the relevant technical

capabilities of the industrial base" (European Parliament and the Council of the European Union, 2009, p. Article 21).

- An excessive distortion of the main contractor's supply chain should be avoided and "the proper functioning of the successful tenderer's supply chain should not be jeopardized" (European Parliament and the Council of the European Union, 2009, p. Recital 40).

5. Research and Development

The defense procurement directive addresses research and development (R&D), recognizing that "stimulating research and development is a key way of strengthening the European Defence technological and Industrial Base…. [and t]he importance of research and development in this specific field [of defense and security] justifies maximum flexibility in the award of contracts for research supplies and services" (European Parliament and the Council of the European Union, 2009, p. Recital 55). The award flexibility is understood here as either allowing the exclusion of certain R&D service contracts from the scope of the directive, or applying negotiated procedures without publication of a contract notice. To ensure a certain level of competition in the award phase, the DPD limits the scope of R&D contracts "to activities up to the stage where the maturity of new technologies can be reasonably assessed and de-risked" (Directorate General Internal Market and Services, 2010e, p. 1). The idea behind this provision is to ensure fair competition in the later phases of the life cycle of a product by preventing a predetermined choice of tenderer for the later phases. It is important to note that R&D provisions apply for national contracts only, as the cooperative contracts (including R&D) are excluded for the scope of the directive.

For the purposes of the directive, R&D covers "fundamental research, applied research and experimental development" (European Parliament and the Council of the European Union, 2009, p. Recital 13) as these R&D categories are based on the Technology Readiness Levels measure used by many companies, international organizations, and government institutions to assess the maturity of evolving technologies in the management of R&D projects (Directorate General Internal Market and Services, 2010e, p. 2).

In terms of the awarding instruments available, the basic choice of the contracting authorities should be between two options:

- Awarding a contract that covers R&D only and which subject-matter cannot go beyond the demonstration of the "performance of a new concept or a new technology in a relevant or representative environment" (Directorate General Internal Market and Services, 2010e, p. 3). This means that all contracts for follow-on phases should be awarded separately following normal procedures of the directive.

- Awarding a contract that combines R&D with other preproduction or even production activities, as such a contract should be awarded under the normal procedures of the directive.

Applying normal procedures of the directive usually means that contracts have to be awarded in European-wide competition through a restricted procedure or a negotiated procedure with the publication of a contract notice or, where applicable, a competitive dialogue.

If the contracting authorities intend to use a more comprehensive approach and award a contract that goes beyond the R&D phase and includes the making and qualification of prototypes or other services/supplies related to the pre-production phase or even combined development and production, they must award the contract in a European-wide competition through one of the normal procedures under the DPD. The main risk of using this more comprehensive approach is twofold – on the one hand the later phases of the contract implementation might require materially significant amendments of its subject-matter (which would require a new contract award procedure) and on the other hand, during the award procedure, it might impossible to fix exact prices for all later phases of the contract (Directorate General Internal Market and Services, 2010e, p. 6).

The directive provides two additional instruments:

- It allows for the specific exclusion of certain R&D contracts under Article 13(j) principally aimed at service contracts awarded for co-financed R&D activities where the contracting authority and the contractor share costs and/or benefits. Contracts for R&D services where the contracting authority funds alone and obtains all the benefits (including IPR and all rights to use and/or disclose information related to the R&D findings) are not covered by this exclusion.

- The defense procurement directive provides an exhaustive list of cases justifying the use of the negotiated procedure without prior publication of a contract notice for R&D service contracts and supply contracts. This procedure is an exceptional one and, in the context of R&D, can be applied for "services other than those referred to in Article 13" (European Parliament and the Council of the European Union, 2009, p. Article 28[2][a]) or "for products manufactured purely for the purpose of research and development, with the exception of quantity production to establish commercial viability or recover research and development costs" (European Parliament and the Council of the European Union, 2009, p. Article 28[2][b]).

If the contracting authority that has awarded a research contract under Article 13 (j) or Article 28 (2) intends to conclude follow-on contracts for the pre-production phase and/or supply contracts for the production phase, it has to apply the normal procedures provided for by the directive.

Undoubtedly, the DPD introduced very important legal innovations that aimed to offset the previous deficiencies of public procurement directives in terms of defense contracts. Security of supply and security of information provisions can probably foster competition in the EDEM to a certain degree, but they can hardly compensate entirely for the lack of European-wide regimes on these important issues. The subcontracting provision also looks somehow patched up and can hardly serve as an instrument "to inject competition into the supply chain of prime contractors" (Guidance Note on Subcontracting, p. 1) and to replace the compensatory (offset) practices that member states use to involve their domestic industry when purchasing from foreign contractors.

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V. LEGAL AND POLITICAL LIMITATIONS OF THE SCOPE OF THE EU DEFENSE PROCUREMENT DIRECTIVE

The basic objective of the European defense procurement legislation to establish an open and competitive EDEM looks even harder to achieve when one analyzes which defense contracts remain out of the scope of the directive. Namely, the contracts "out of the directive" are discussed in this chapter in terms of national political and security considerations of the member states.

A. DEFENSE PROCUREMENT DIRECTIVE'S EXCLUSIONS

Despite the relatively high ambition of the Commission to encourage the member states to apply the defense procurement directive for most defense and security contracts, there are some critical exemptions that limit substantially the scope of the directive and allow the EU member states to derogate from the European Internal market rules. As was mentioned in the previous chapter, some specific contracts subject to Articles 36, 51, 52, 62, and 346 TFEU are excluded from the defense directive scope. Most of these exemptions are further reflected in Section 3 "Excluded contracts" of the DPD.

Since the basic issues with the application of Article 346 TFEU have been already discussed, the further analysis further focuses on the other directive's exemptions and answers in particular the following questions: Why are such exemptions allowed? What kinds of defense contracts are excluded from the defense procurement? What are the basic member states' national interests related to these exemptions that are at stake?

The answer to the first question seems quite easy and straightforward—the directive, being part of the EU secondary law, cannot change or overrule the Treaty (primary law), and most exemptions have been merely integrated into the defense directive (Trybus, 2014). In short, not matter how ambitious the goals of the directive's drafters were, they faced the objective legal limitations set up by the treaty.

Secondly, the contracts that are exempted from the defense directive are listed in Articles 12 and 13 of the directive. These contracts include under international rules contracts under specific rules—secrecy, intelligence, cooperative contracts, contracts of

forces deployed outside the territory of the EU, government-to-government contracts, and contracts for R&D services (European Parliament and the Council of the European Union, 2009, p. Article 12).

The third question requires a more complex answer since one should always take into account that the EU is not a single country, but includes 28 sovereign states, and each of them has specific national security interests and concerns related to defense procurement that sometimes do not overlap.

1. International Rules

The scope of the defense procurement directive does not apply for contracts governed by some international agreements that contain specific procedural rules. Article 12 clarifies the possible three settings where exemption of the directive under the international agreement case is allowed:

- *International agreements or arrangements between one or more member states and one or more third countries.* Since this exclusion is very generic (European Parliament and the Council of the European Union, 2009, p. Article 12[a]) and puts no constraints on the member states in terms of the subject of the arrangement/agreement, the latter must contain specific procedural rules for the award of the particular contract (Directorate General Internal Market and Services, 2010f, p. 3). From a legal perspective it is important to highlight that the basis of the rules does not have to be in the form of an international treaty—a memorandum of understanding is sufficient. Still, the clause requires at least one-third of states to be a party of this international agreement (Trybus, 2014).

- International agreements or arrangements relating to the stationing of troops and concerning the undertakings of a member state or a third country. As opposed to the previous case, this provision has more limited scope and includes a scenario even when the arrangement/agreement has only been signed by two member states (Directorate General Internal Market and Services, 2010f, p. 3).

- *Contract award under the rules of international organizations*. This specific exclusion allows an EU member state to derogate the common procurement law and to award a contract under the rules of an international organization, but only in case the member states acts on behalf of the organization or receives a financial contribution from the organization for the execution of the contract. The exception applies only when the procurement in question is for the organization's purposes, but

> not for the individual needs of the particular EU member state. The latter suggests a relatively narrow interpretation of this provision, since only a few international organizations procure defense and security goods for their own purpose, and among them NATO looks the most prominent (Directorate General Internal Market and Services, 2010f, p. 4).

A typical example for the last scenario, where an allied European member state can award a contract through an organization with its own procurement rules, is the NATO Support and Procurement Agency (NSPA), the executive body of the NATO Support and Procurement Organization (NSPO). The NSPA provides individually and collectively acquisition (including armaments procurement), logistics, operational and systems support and services to the Allies, NATO military authorities, and partner nations. Since the EU defense procurement directive has come into force, the option to request services directly from the NSPA remains no more viable for the allied EU member states if they procure for purely national defense needs. In short, EU member states can apply NSPA procurement rules only for the sake of NATO as an international organization (NSPA).

2. Specific Rules

Article 13 of the EU defense procurement directive provides for another list of exclusions that in most parts is directly related to defense contracts and reaffirms some of the already established practices.

- *Disclosure of information.* The directive does not apply to "contracts for which the application of the rules of this Directive would oblige a Member State to supply information the disclosure of which it considers contrary to the essential interests of its security" (Article 13[a]). This specific is closely related to the Article 346(1)(a) TFEU but unlike the TFEU's provision it provides a direct link between the latter and the non-application of the directive (Directorate General Internal Market and Services, 2010f, p. 5).

- *Intelligence activities.* The directive does not apply to "contracts for the purposes of intelligence activities" (Article 13[b]). The nature of most intelligence activities can hardly be reconciled with one of the basic principles of the directive for transparency. Although the directive does not provide any definition of "intelligence activity," and the member states are free to determine the term, the purpose of the actual procurement should serve for the accomplishment of intelligence and cannot be

broadened to all activities of the intelligence organizations (Directorate General Internal Market and Services, 2010f, pp. 5-6).

- *Cooperative programs.* The directive does not apply to:

> "contracts awarded in the framework of a cooperative program based on research and development, conducted jointly by at least two Member States for the development of a new product and, where applicable, the later phases of all or part of the life-cycle of this product (European Parliament and the Council of the European Union, 2009, p. Article 13[c]).

  The application of this exclusion depends on the following conditions: (a) the nature and purpose of the program should be the development of a new (not on-the-shelf) product based on R&D; (b) contracts for the later phases of the life-cycle (i.e., for production and maintenance) should be awarded in the framework of the cooperative program based on a genuinely cooperative concept (typical examples include programs managed by international organizations, or the "lead nation" model); (c) the participating member states must inform the Commission at the very earliest stage of a cooperative program on the R&D share, cost-sharing and intended share of purchase (Directorate General Internal Market and Services, 2010f).
- *Contracts awarded in third countries.* The directive does not apply to "contracts awarded in third country, including for civil purchases, carried out when forces are deployed outside the territory of the Union where operational needs require them to be concluded with economic operators located in the area of operations" (European Parliament and the Council of the European Union, 2009, p. Article 13[d]). Unlike Article 12(b), this provision applies not only for military, but for civilian or civil-military operations outside the Union. It allows to authorities deployed in the area of operations to derogate the directive for contracts awarded to suppliers located in the area of operations, which may include third countries in the surrounding geographic zone (Directorate General Internal Market and Services, 2010f).

- *Government-to-Government (G-to-G) contracts.* The directive excludes contracts awarded between governments relating to (a) the supply of military equipment or sensitive equipment; (b) works and services directly linked to such equipment; (c) works and services specifically for military purposes, or sensitive works and sensitive services (European Parliament and the Council of the European Union, 2009, p. Article 13[f]). Contracts can be awarded for a broad range of very different purchases. With regard to supply contracts, the exemption is primarily intended for sales of equipment that is delivered from existing stocks, such as used equipment or stocks that are surplus to requirements. However, the exemption is not

> restricted to such operations and applies to all contracts for the supply of military or sensitive equipment, including, in principle, even purchases of new material (Directorate General Internal Market and Services, 2010f). The typical application of this provision is the case where a specific new defense equipment or system (missiles or spare parts for existing equipment) can be acquired only on a G-to-G basis. The buying EU member state cannot require from the selling government of a third country to follow the European procurement regulation. The U.S. Foreign Military Sales (FMS) program, which is governed by U.S. law, is the most prominent example for such a G-to-G procurement mechanism.

All these exclusions from the scope of the directive provided under Articles 12 and 13 must be confined to contracts of the type described in these provisions. The burden of proving that a procurement case falls within the limits of one of these exclusions lies with the member state seeking to rely on it. None of the rules, procedures, programs, arrangements or contracts referred to the above mentioned exemptions "may be used for the purpose of circumventing the provisions of this Directive" (European Parliament and the Council of the European Union, 2009, p. Article 11).

B. NATIONAL CONSIDERATIONS RELATED TO THE NON-APPLICATION OF THE DIRECTIVE

The Treaty for the Functioning of the European Union has always been considered an instrument of market integration including public procurement. It was never intended as an instrument of defense and security integration, though, which become obvious both from the lack of a legal base for such integration in the treaty and from a number of defense-specific exemptions in the TFEU. This ultimately limits the treaty's market integrating function in areas where the internal market overlaps with the defense and national security interests of the member states (Trybus, 2014). The acquisition of armaments had been left unregulated by a specific instrument at the EU level until recently (Trybus, 2014). Thus, while goods and services are subject to the internal market and had been covered by the public procurement directive 2004/18 and its predecessors, in practice the extensive use of the number of derogations, must notably of what is now Article 346 TFEU, had taken most armaments and related services outside the EU's trade, competition, and procurement rules (Trybus, 2014). There are some basic

and widely accepted explanations for why there are so many exemptions in European law in terms of defense procurement, and most of them contain political reasoning.

1. National Sovereignty and Defense Autarky

A political feature of defense policy in general and of defense procurement in particular, in Europe and elsewhere, is the special emphasis states put in sovereignty in this policy field. Sovereignty implies independence from anybody outside the nation. With respect to defense procurement, this implies that a state can produce all its defense needs internally and maintain defense autarky. A few considerations, however, put the objectives of sovereignty and defense autarky into perspective. First, defense equipment is never 100% of a particular national origin. Thus, 100% autarky is an illusion for this technological reason alone. Secondly, due to limited funds and rising unit costs, defense autarky is not a realistic policy option for any member states (Trybus, 2014).

Despite the fact that the emphasis on sovereignty today seems questionable for the EU member states (at least because defense industrial autarky is not a feasible policy option due to the limitations of their defense industrial bases), most of these states are still trying to remain independent as much as possible in the defense procurement area. The aim for defense autarky has a legacy and touches on both a number of political and security (not to mention economic) concerns related to defense industrial capabilities (Trybus, 2014). The policy instruments used by the EU member states may vary widely due to the opposite interests that different European countries may have, though. Although there is no clear-cut differentiation, one can categorize EU member states into two main groups—arms-importing vs. arms-exporting countries. For sure, this is an ideal categorization that serves only for explaining the opposing interests within the EU. In fact, even the most developed EU member states do not repy only on domestically produced armaments.

2. Defense Countertrade in International Arms Transactions

National security is a crucial consideration for defense policy including defense procurement. This concept features prominently in the armaments exemption in Article 346 TFEU and other related exemptions. The common feature of these exemptions is that

they can justify derogation from parts or all of EU Internal market regulations (Trybus, 2014). The basic concern behind the notion of security of supply is that both initially and during an often long life cycle of a contract, both in peace and in time of crisis and war, a member state needs to be sure that the goods, works and services it needs to operate its armed forces will be supplied and provided. They need a guarantee, control and no third party constraints. These dangers can occurred in both domestic contract as well as a contract with a supplier from another member state or third country. However, they might be more significant in a non-domestic context, since the government has less control over factors affecting SoS (Trybus, 2014).

One of the basic instruments for ensuring the security of supply that most arms-importing countries have been using since the end of WWII and especially after the 1960s is the defense countertrade usually labeled as offset. The understanding of the offsets is quite wide and encompasses "a variety of industrial compensation arrangements utilized by some governments as a requirement for foreign defense firms in large procurements" (Nackman, 2011, p. 515).

Offsets function as a condition of the sale of defense articles to the purchasing foreign government, whereby that foreign government or its economy compensates some portion of the acquisition's value. Offset's basic goal is typically either to compensate the outflow of huge national capital, or to build a specific defense industrial capacity at home, or some combination of both. As Figure 1 demonstrates, one can group offsets into direct and indirect, depending on whether the requirements tie directly to the article being traded, or simply represent a counterbalancing value.

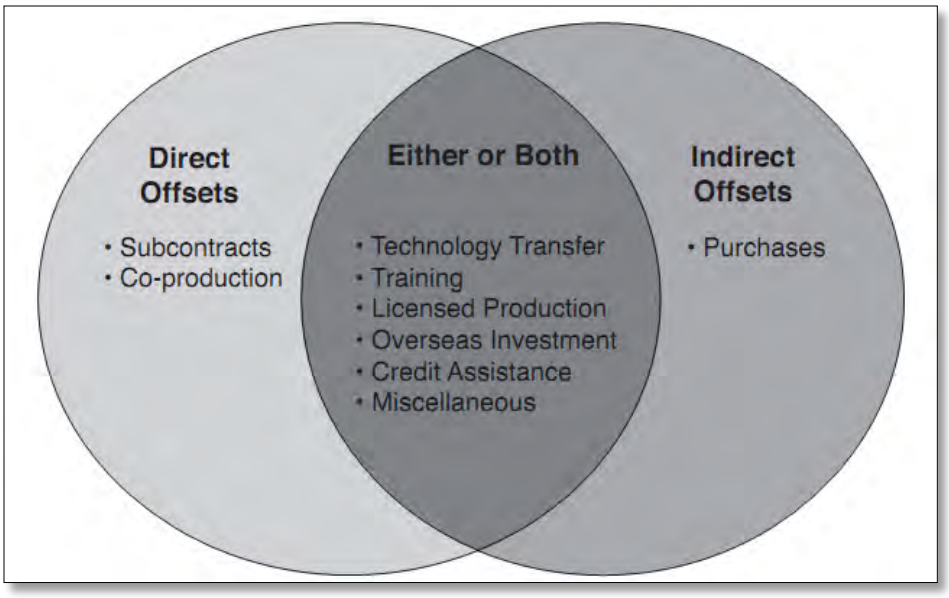


Figure 1. Categorization of the Offset Transactions (from Nackman, 2011, p. 519)

Normally, the arms-producing, and especially predominantly arms-exporting countries do not favor offsets practices. For the U.S. as the world's biggest defense exporter defense trade offsets represent a "national security concern that threatens the nation's defense industrial base, especially when major domestic prime defense contractors replace domestic subcontractors with foreign ones on heritage U.S. major defense programs for the international market" (Nackman, 2011, p. 529).

A 2007 EDA study report shows the different perspectives among the EU member states on the application of offset practices in arms trade:

- Countries with globally-oriented export and limited (mostly European-oriented) import such as France and Germany do not accept offset as a matter of policy;
- Countries with European-oriented export but also with considerable transatlantic-oriented import such as Italy, the Netherlands, Sweden, and the UK typically prefer indirect military offset (related to military goods other than the subject of the main contract) as their typical form of offset.
- The biggest arms-importing countries (which are likely to be also significant exporters) such as Finland, Greece, Poland, Portugal, and Spain prefer direct offset.

- The remaining countries are relatively small actors both in terms of export and import, which means that because of their relatively small and limited absorptive capacity means they tend towards indirect civil offset (Eriksson, 2007, p. 77).

The 2009 defense procurement directive does not mention the offsets at all. For the European Commission, the directive cannot allow, tolerate, or regulate offsets because they violate basic rules and principles of primary EU law. The Commission considers the offset requirements as "restrictive measures which go against the basic principles of the Treaty, because they discriminate against economic operators, goods and services from other Member States and impede the free movement of goods and services" (Directorate General Internal Market and Services, 2010g, p. 1). And indeed, defense offsets can be referred to as one of the non-tariff barriers that distort the free market and more precisely to the subcategory of DCL mentioned above.

Instead, via the new provisions on security of supply and sub-contracting, the defense procurement directive offers to the member states a non-discriminatory alternative to the offset practices.

At the same time, despite the legal interpretation of the Commission and the established ECJ case-law, the very existence of Article 346 TFEU provides the EU member states with some opportunities to apply offsets. This is recognized by the Commission as it expects all member states' decisions to use Article 346 to be based on a case-by-case assessment and to meet both the proportionality and necessity test (Directorate General Internal Market and Services, 2010g). Despite the more limited toolbox that the member states have today, they still have the legal opportunity to negotiate offsets outside the EU law. And this is something that probably most of the arm-importing member states have already in mind, especially for the future G-to-G contracts.

3. Promoting and Facilitating Arms Exports

Many of the biggest European arms-exporting countries are trying to support the domestic defense industries by promoting and facilitating arms export as a compensation of the decreasing national defense expenditure. This can be hardly surprising, since the

simple economic logic presumes that every time when a specific national market is shrinking, the government tries to ensure external markets for the domestic industries with excess capacity, and the defense industry makes no exception of this logic.

It seems much more interesting to observe that today some of the most significant European arms-producers are trying to follow the U.S. defense-export model, though. In 2013, the British government announced its plans to boost the defense export through G-to-G sales applying a tool similar to the U.S. FMS program. Similarly, Spain started offering G-to-G sales, and Italy is expected to follow. The French government is planning to make the leasing of weapons to other countries as an available option to increase the domestic export opportunities (SIPRI, 2014, p. 255). Since the G-to-G contracts represent one of the specific exemptions of the defense procurement directive (explained in Chapter IV), all these new policies of the major European arms-producing countries suggest that a big portion of the future defense sale in Europe will happen outside the common defense procurement legal framework.

Probably, the most feasible explanation in favor of G-to-G policy is the trend for the continuing fall in military expenditure in Western countries (North America, Western and Central Europe, and Oceania) and increase in all other regions and subregions (SIPRI, 2014, p. 175). Indeed, European defense procurement rules would make less sense if dealing with countries outside the Union.

4. NATO as the Prime Defense and Security Guarantor for Europe

Since Maastricht 1992, the EU has extended its role beyond trade and developed the Common Foreign and Security Policy in several stages to a Common Security and Defence Policy under the Treaty of Lisbon 2009. The EU is now a defense organization, and there is a clear ambition to develop this role further. The CFSP and CSDP are part of the so-called “Second Pillar,” which means that they are considered separately from the internal market. Despite the abolishment of the three-pillar structure of the Union with the Lisbon Treaty, the CSFP is still a separate intergovernmental framework dominated by the member states in the Council, separate from the decision-making and legal principles of EU internal market and the TFEU (Trybus, 2014).

Still, even today the enlarged NATO is still considered the main defense organization in Europe. What could be the reason for Europe to develop its own defense structure, especially when only six (Austria, Cyprus, Finland, Ireland, Malta and Sweden) out of the 28 EU member states are not part of NATO.

Some analysts argue that these policy developments have a purely political and geostrategic explanation—after the end of the Cold War, the EU has started to consider the hegemonic position of the United States in international relations as a risk factor, and this has triggered European ambitions to develop autonomous military capabilities to be able to act without and if necessary against the will of the United States (Trybus, 2014).

Others think outside of transatlantic relations and explain the EU's ambitions in developing an autonomous defense policy with the spill-over from the successful progress of the European economic integration.

A third group of scholars provides a combined explanation from the two arguments mentioned above. The EU defense integration leap is a result from both the outside (to the Union) environment and U.S. uncontested power, and from the internal push for more economic integration to encompass all spheres of social life, including defense matters (Trybus, 2014).

Despite the declared ambition of the EU to play a more significant role in the global defense matters, there is a considerable capability gap between Europe and the United States. This has one major consequence for the European states—in some critical areas, at least in the short and medium term, they will rely on access to NATO capabilities, but de facto to the U.S. military assets (Trybus, 2014). Expectedly, they will probably rely on and be ready to co-fund more NATO joint armaments programs rather than pure European ones. This argument is supported with the necessity for interoperability with the most military powerful allies—the United States and Turkey, which are outside the Union.

To sum up, along with the most popular defense-related exclusion clause of the Treaty, the defense procurement directive itself contains some other important exemptions. The latter are considered necessary legal opportunities that allow the

member states to derogate the EU law when they are not able to protect their essential security interests even with the more flexible defense directive's procedures. However, these exemptions provide member states with wide room for maneuvering and for applying different protectionist mechanisms that could undermine the entire idea of the European defense procurement framework—common rules for all member states. As explained above, depending on whether an EU member state is predominantly an arms-exporting or arms-importing country, it is motivated to use different defense directive exemptions or Article 346 TFEU for protectionist purposes. The biggest exporters would probably prefer to increase the G-to-G arms sales, while the biggest arms-importers would try to negotiate some form of countertrade.

Despite being termed by the Commission as illegal, the offsets will continue to exist in Europe, even if only in the cases where the European countries are suppliers and third countries are the buyers. The global defense equipment markets became overcrowded and the competition between the defense manufacturers had been increasing recently. In turn, this process provides the third-country buyers with more bargaining power and gives them enough grounds to wheedle an offset commitment from the suppliers that are struggling for survival.

In following chapter, I try to support these arguments by interpreting data collected from indirect sources like official statistical material (mainly, but not exclusively, from annual reports of the EDA, EC, EP), published documents of the European governments and U.S. agencies, scientific publications of research organizations such as SIPRI, as well as data files from past researches.

As indicators of the European defense equipment demand are used total defense expenditures, defense investments (including defense equipment procurement and R&D), and collaborative defense equipment procurement, while the analysis of the European defense industry (the supply side of the market) is based on data such as total arms sales, geographic distribution of the international trade of conventional weapons, employment of the defense industry, and others.

VI. BASIC TRENDS IN THE EUROPEAN DEFENSE EQUIPMENT MARKET

The end of the Cold War and the disappearance of the communist threat changed the Western perceptions of the need for maintaining large and expensive armies. This led during the 1990s to significant cuts in the defense expenditure both in the United States and Europe. It became clear that the inherited immense defense industries from both sides of the Atlantic could not sustain if they continued to rely on their national demand only. Both the United States and European companies started to look for overseas defense markets, which drove them to increase their efficiency through consolidation—first within the national borders and later on through acquisitions or mergers of foreign companies. In turn, this led to the gradual internationalization of the defense industries, which a decade or two ago one could hardly imagine because of the international political environment. However, while the U.S. defense industry went through the consolidation process relatively fast and soon became the uncontested global supplier of defense goods and services, European manufacturers maintained a much slower pace in this transformation process, which eventually reduced the competitiveness of the latter significantly.

A. SHRINKING EUROPEAN DEMAND

As already mentioned in Chapter II, one can hardly speak of a common strategy for the development of the European defense equipment market before the early 2000s. Before that period, defense equipment cooperation involved mainly the biggest arms-producing countries and was organized on a work-share basis. This collaborative approach had been often criticized as ineffective and exclusive, because (a) the procurement contracts were usually distributed among the participating countries proportionally to the their financial contribution to the program rather than on competition and (b) these collaborative programs rarely involved other than the top six European arms-producing countries.

Since 2003, the EC started engaging more actively in defense equipment market issues, first by raising the awareness of the member states that a common action would be required and second by tabling proposals for concrete actions to improve the European market environment. A culmination of the Commission efforts could be considered the 2009 approval by the European Council and the Parliament of the so-called "defense package" of legislation. The main document of this package (at least as an object of the most analyses and commentaries in this field) was the defense procurement directive 2009/81.

At the same time, the EDA had been established in 2004. Without having the 'coercive toolbox' of the European Commission (which can impose financial sanctions over the member state for non-compliance with the Community law), the agency has put forth a lot of effort recently to foster the European defense cooperation, including the improvement of the EU's defense capabilities through cooperative projects and programs. Almost since its establishment, the EDA has put a special emphasis on the increase of the transparency and competition in European defense procurement and introduced a voluntary and non-binding system of codes of conduct or of best practices that provided for common rules on the defense procurement under Article 346 TFEU, offsets, supply chain, security of supply, pooling and sharing, etc.

Having all this in mind, it seems quite reasonable to examine whether these institutional efforts and especially the introduction of specific legal norms with the DPD already in force have driven the EU member states to "spend more and spend better" for defense, or not.

For the purpose of further analysis of the defense equipment demand, I use the defense data collected by the EDA on an annual basis as my main data source. All EU member states (with the exception of Denmark, which does not participate in the EU military structures) provide the data to the agency through their ministries of defense.

The data and aggregated figures for the period 2005–2012 are public and available on the EDA's official website under the section "Defence Data." The data are broken down based on a list of indicators approved by the EDA's Ministerial Steering

Board composed by the ministers of defense of participating Member States (pMS) (EDA, 2013a, p. 3).

In terms of the macroeconomic data, for 2005–2007 the EU experienced a steady GDP growth rate with its peak of 3.9% in 2007, which in absolute values represents the amount of €12.8 trillion. For the same period, the overall public expenditure growth rate was slower but steady.

As the financial crisis hit Europe in 2008, the GDP dropped with -4.14% compared to the previous year. At the same, the 2008 European total public expenditure accounted s 3.8% increase compared to 2007 (see Figure 2 and Table 1A). In fact, with the exception of 2011, when the overall public expenditure dropped by 1%, they had been growing in absolute values for the entire period of 2005–2012.

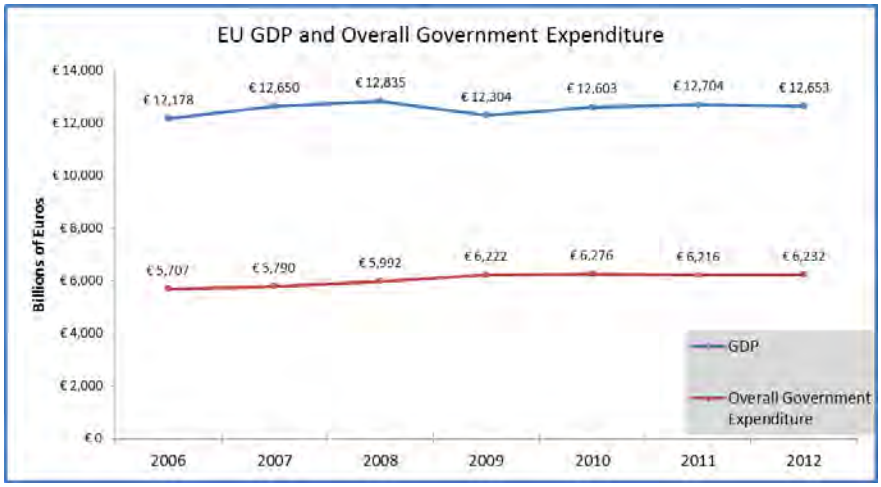


Figure 2. The EU's GDP and Overall Government Expenditure.

However, what could hardly be seen in these figures was the increased risk for the financial stability of the Union after 2008. The financial crisis put the EU member states in a situation where they had to increase the public debt and lend money to guarantee their national recovery. The long-term debt problem and the risk for the financial stability of the Union made the decrease of the public spending the only option for the European governments (European Parliament, 2011, p. 35).

Despite the slight differences among the member states, the impact of the crisis pushed them to decrease public expenditure and one of the first areas to look at was precisely the defense sector. Even during the three-year period of economic growth (2005–2007), the aggregate defense expenditure in absolute values of the EU member states did not change significantly, though it had been decreasing as a percentage of the total GDP (see Figure 3 and Table 1A). How the crisis affected the European defense budgets after 2008 becomes much more obvious if once compares the percentage change in EU defense expenditure as of total GDP (see Figure 4 and Table 1A).

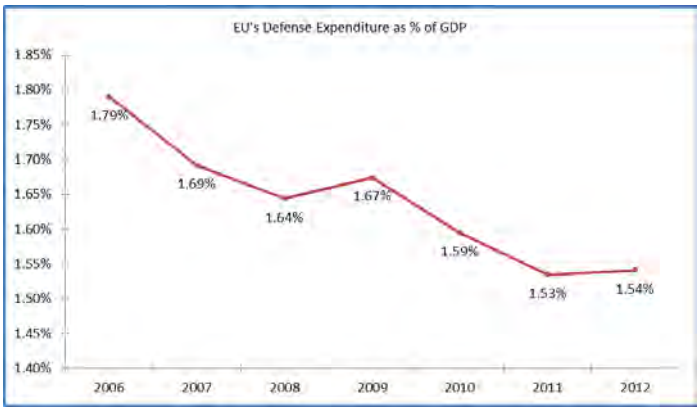


Figure 3. EU's Defense Expenditure as a Percentage of the Total GDP.

Figure 4. Percentage Change in EU Defense Expenditure as of Total GDP.

The decision of how to distribute the savings among the defense expenditure structure varied by country and depended on the defense policy priorities of the individual member states. However, the majority of European countries reduced the

personnel cost first and most significantly. On average, cuts in investment were much lower, at least initially. Although many European countries sought to cut some costly defense equipment programs, it took them some time to evaluate the effect of such cuts on their defense capabilities and then to negotiate with the contractors the reduction size and penalty due for the contract amendment or cancelation (see Figure 5 and Table 2A).

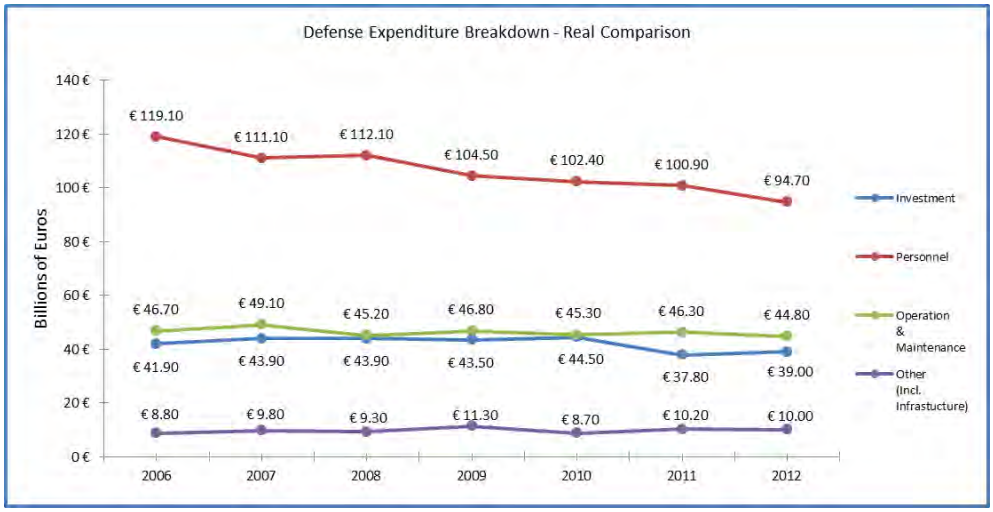


Figure 5. EU's Defense Expenditure Breakdown.

However, in spite of the 2011 significant drop (-2.4%) of defense equipment spending, the R&D (including R&T) expenditure seemed mostly affected by the investment cuts. Within the defense investment structure, the relative share of R&D spending had been decreasing even before the crisis. However, the total European defense R&D percentage had been maintained above 4% until 2012, when it dropped significantly to 2.5% of the overall defense investments (see Figure 6 and Table 3A).

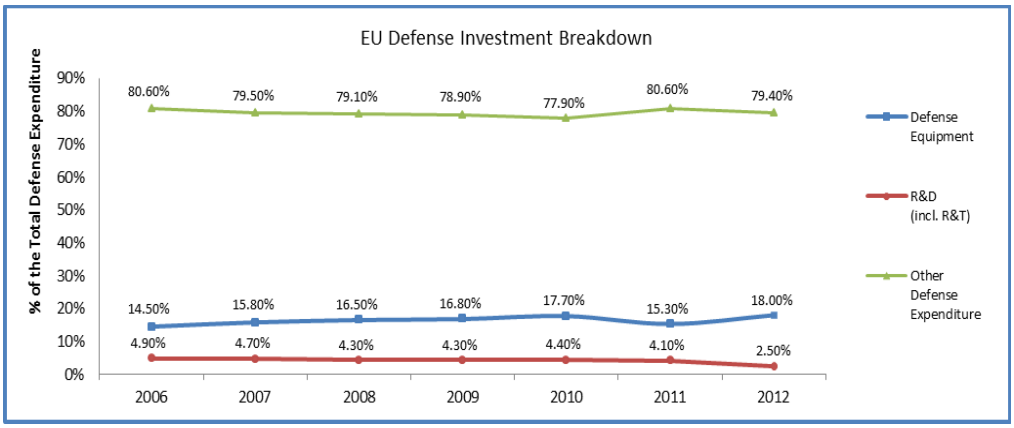


Figure 6. EU's Defense Investment Breakdown.

The total defense investments data can show "the big picture" of the European defense equipment demand; however, it tells little about one of the main problems of the demand—among the EU member states it is distributed unevenly. The percentage distribution by country (see Figure 7) shows the relative weight of each EU member state to influence the demand of the European defense equipment market. The top five buyers – United Kingdom, France, Germany, Italy, and Spain formed together almost ¾ (74.63%) of the average defense equipment procurement (including R&D) for 2005–2012 (see Figures 7, 8, 9, and Table 4A).

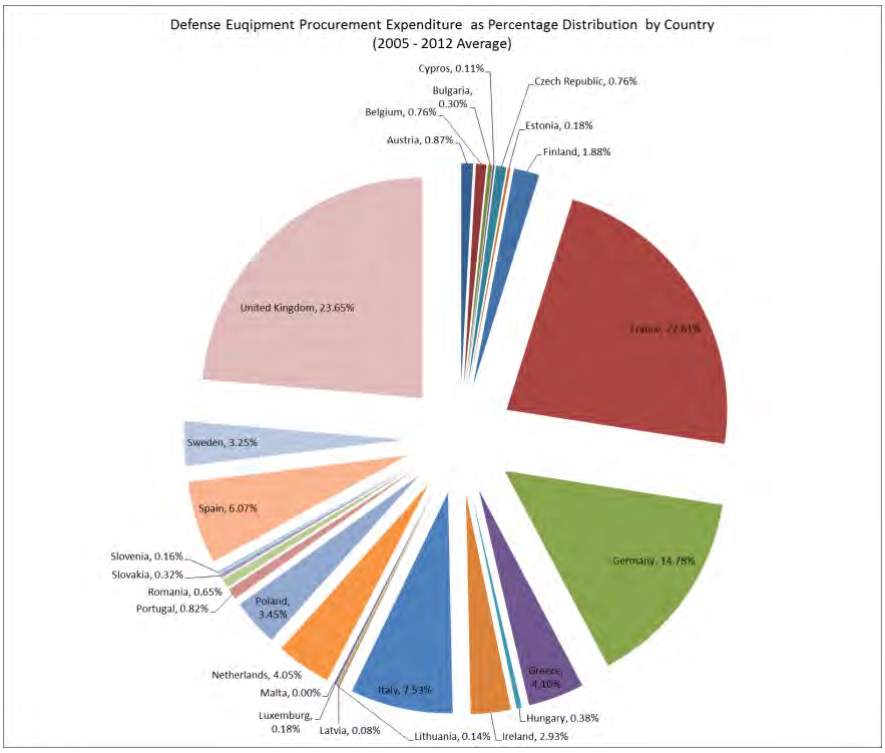


Figure 7. Percentage Distribution of the EU-27 Defense Equipment Procurement Value.

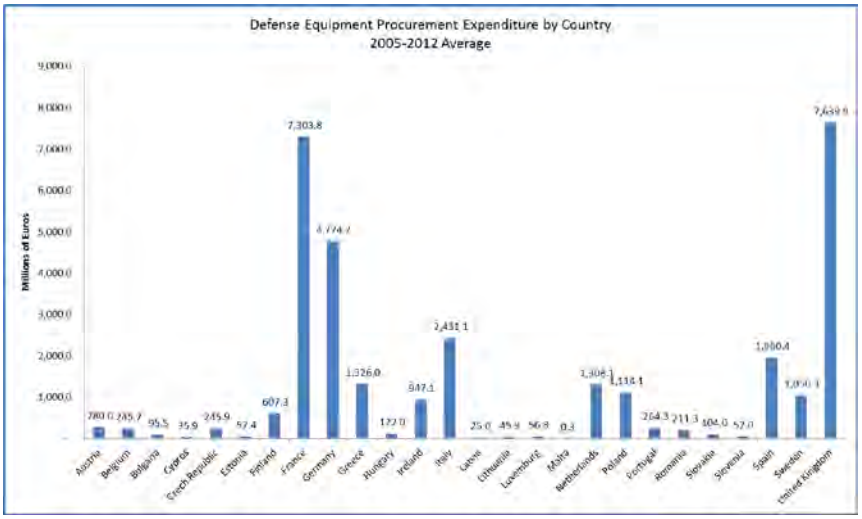


Figure 8. EU's Defense Equipment Procurement.

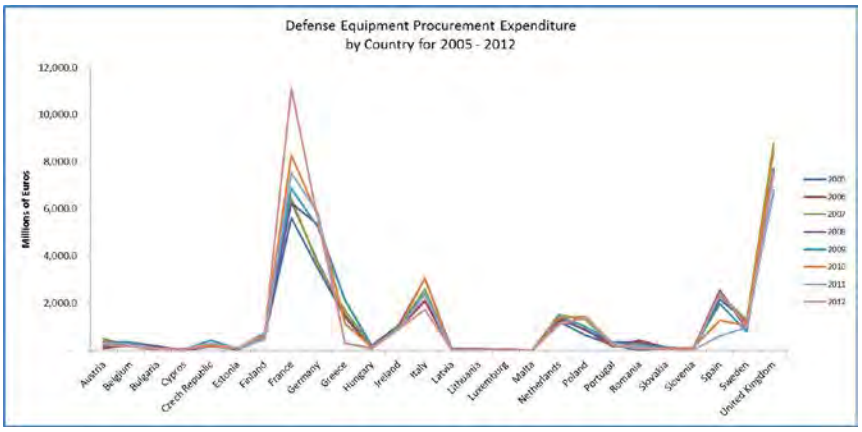


Figure 9. EU's Defense Equipment Procurement by Country.

For the analysis of integration role that the defense equipment procurement is expected to play for the consolidation of the EDEM, it is relevant to look specifically at the distribution of the national versus cooperative procurement. A particular emphasis is needed on the data after 2009, since the defense procurement directive came into force in 2009. Because of the two-year period granted to the member states for the transposition of the directive into their national legislations, the new common procurement rules became truly operative as of 2011. This presupposes one of the basic limitations of the current analysis—the data available does not include the numbers for 2013 to date. This objective reason limits the accuracy and validity of any generalization related to the procurement behavior of the EU member states. However, since most European collaborative procurements has been so far a product of long-lasting negotiations and preliminary administrative work, one can hardly expect to observe very fast and dynamic changes for such a short period.

Given this limitation, the distribution of the national versus cooperative defense procurement and R&D in Europe remains an important indicator for the integration level of the EDEM. If the EU's institutional efforts drive the member states towards more cooperative defense procurement and R&D (at least for the purpose of gaining economy of scale and not to mention other important military benefits such as interoperability, common standards, etc.), then probably further institutionalization and regulations is the right way to achieve a stronger and more competitive EDEM.

The figures for 2006–2010 show that the average percentage of the defense procurement awarded to national suppliers was around 77%, while the collaborative procurement marked 21% (see Figure 10 and Table 5A). The latter significantly increased in 2011 to over 25%, but this increase was rather temporary. The next year, armaments collaboration dropped to a level never seen before—less than 17%. The figures for 2012 show completely the opposite direction than one should expect—instead of an increase of the European armaments cooperation after the DPD had become operative, the data shows a significant decrease. Thus, the European defense equipment demand looks quite fragmented after the new procurement rules have come into force.

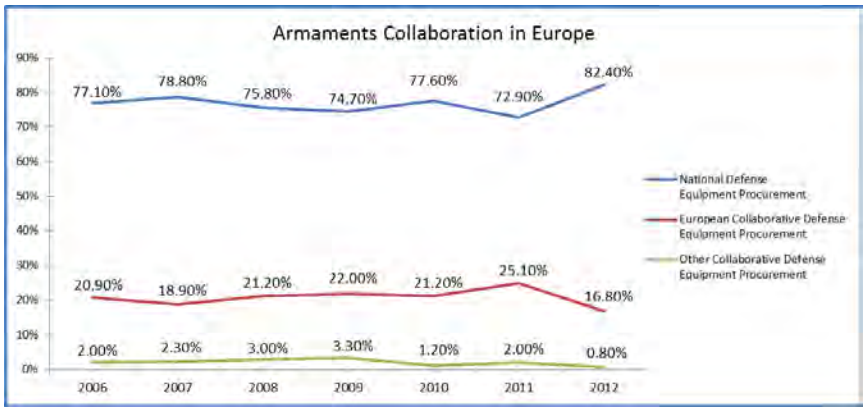


Figure 10. EU's Defense Procurement Breakdown - Domestic vs Collaborative.

Government spending for R&D activities and projects, especially in the high-tech and innovative sectors, has been always an important indicator to evaluate the importance of a particular industrial sector for the national economy. The defense sector makes no exception. As already mentioned in Chapter III, the development of a defense good is a highly technical and scientific business with positive spillover effects. In most cases, drawing substantial capital for R&D is crucial for achieving a scientific breakthrough.

Not surprisingly, the defense procurement directive addresses R&D as a key way for strengthening the European defense technological and industrial base. However, as already mentioned in Chapter IV, the directive's R&D provision aims to ensure certain level of competition for nationally-awarded contracts only, while the cooperative R&D contracts remain outside of the directive. The basic assumption of this provision is that

"the importance of the research and development in this specific field justifies maximum flexibility in the award of contracts for research supplies and services" (European Parliament and the Council of the European Union, 2009, p. Recital 55).

As an element of R&D, the amount of research and technology (R&T) spending remains an important benchmark. Data shows that there has been a negative trend for the total European R&T expenditure for the period 2005–2012, as during the last year this expenditure has accounted a decrease of -27% compared to 2005 (see Figure 11and Table 6A).

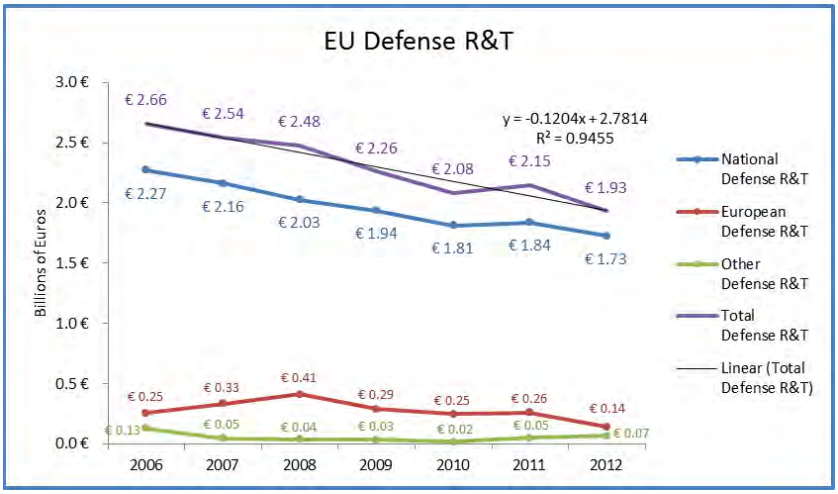


Figure 11. EU's Defense R&T Spending.

When the national versus collaborative R&T expenditure are compared, the data shows that the European defense R&T has been decreasing after 2008 and reaches its lowest value in 2012, accounting for 7.2 % of all defense R&T (see Figure 12 and Table 7A).

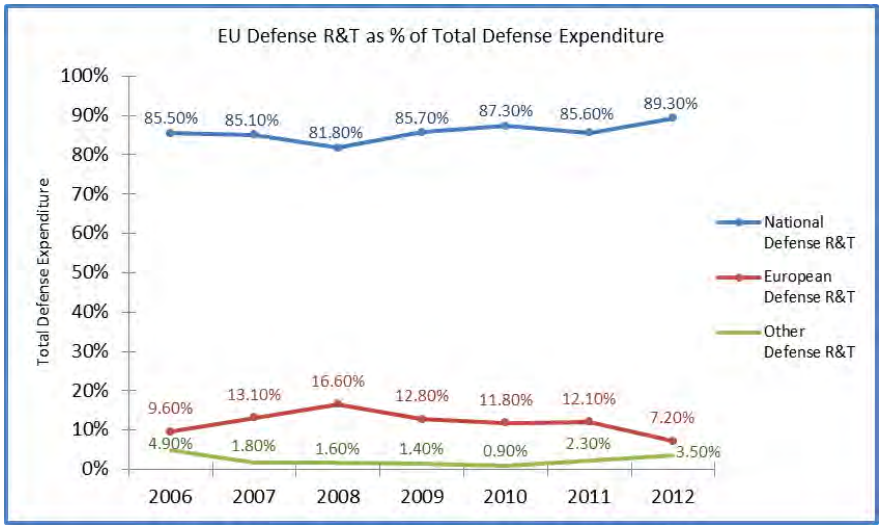


Figure 12. EU Defense R&T Spending as Percentage of Total Defense Expenditure.

Current observations seem to confirm some of the earlier empirical findings (mentioned in Chapter II) that an important number of European countries is willing to spend more for defense when their economies perform better. In 2008 the financial crisis put the public budgets of the European countries under severe pressure, which resulted in significant cuts of their national defense. While the optimists consider this situation as a chance to deepen the defense integration in Europe, the decisions of member states still point in the opposite direction. European countries tend to plan and implement their cuts at the national level, without much coordination or even communication at the EU level about "who is cutting what" (Iersel & Hrusecka, 2013).

One of the most recent studies confirm that despite the general trend in Europe to cut the defense expenditure the impact of budget pressure on the EU member states' defense spending differs significantly, which is mainly due to "the different degrees of importance attributed to defense" (European Parliament, 2011, p. 36). If one isolates procurement spending out of the overall defense expenditure, it becomes possible to observe some patterns among the different EU member states for the period 2005–2012:

- Countries that continue to increase their defense spending such as France, Germany, Estonia, Poland, and others (see Figure 17)

- Countries that maintain a relatively constant level (or a small decrease) of their defense procurement expenditure such as Belgium, Finland, the United Kingdom, and others (see Figure 18)
- Countries that have been reducing their procurement spending significantly such as Bulgaria, Greece, Romania, Spain, and others (see Figure 19). (SIPRI, 2013b)

Another study about the impact of the financial crisis on the defense budgets confirms that EU member states from Southern Europe—Italy, Spain, Greece and Portugal—have the largest cuts in their defense spending. However, each of these four countries has a different approach in choosing what precisely to cut. Unlike Portugal and Greece, Spain and Italy have very developed defense industries, and both have cut primarily on personnel and operations/maintenance costs rather than on procurement. National economic considerations such as preserving employment in the defense sector have been playing important part in their decision-makin process (Teixeira & Pinto, 2014).

With the most prominent exceptions of Poland, Estonia, and the Czech Republic, most of the EU member states from Central and Eastern Europe have been reducing their defense investments significantly. At the same time, the biggest arms-producing countries such as the UK, France, and Germany are trying either to increase or at least to maintain the existing level of defense investements. National economic considerations such as preserving the employment or industrial capabilities in the defense sector have been playing an important part in their decision-making process (Teixeira & Pinto, 2014).

However, according to the last published defense data for 2013, the majority of the European countries continues to cut military spending and the falls in the region since 2008 are no longer confined to eastern and southern Europe. Decreases of over 10% in real terms since 2008 have now been booked in many western and central European countries such as Austria, Belgium, Greece, Ireland, Italy, the Netherlands, Spain, and the UK (SIPRI, 2014, pp. 175-178).

B. EUROPEAN DEFENSE EQUIPMENT SUPPLY

As already mentioned in the study, the significant decrease of the global demand for defense goods and services that followed the end of the Cold War had led to consolidation processes of the defense industry during the 1990s both in the United States and Europe. However, Europe approached the defense industrial consolidation much more conservatively and with a slower pace than the United States. In fact, what one would now label as a European defense equipment market barely existed then, since most of the member states normally tried to preserve their defense industries alone using different protectionist policies that highly departed from the internal market principles. This was a reflex from the long-lasting autonomy of the EU member states in the defense economy, which since the creation of the Union was intentionally left outside the European regulations.

1. European Purchases of Defense Goods: How European?

Since the end of the 1990s and early 2000s, the debate on the need for a common approach in defense industrial policy has been dominating the European political language. Most European leaders agreed that there was a need for a new political and legal framework that would be able to unite the member states' efforts in order to preserve and develop the most critical defense industrial capacities of the Old Continent. In 2004–2007 this became an even more pressing issue in light of the biggest enlargement of the Union to include the post-communist countries from eastern and central Europe.

The establishment of the EDA created a lot of expectations among the Europeans, and especially among the arms manufacturers, that this new specialized European body would be able to facilitate the needed consensus and propose a working common approach for the future the European defense industry. Still, the data discussed above shows clearly that during the period 2005–2012, the EU member states continued to make their political decision in the defense area based on national considerations. Most obviously, this is the case for the period immediately after the outbreak of the 2008 financial crisis. Despite the fact that most of the European countries cut their defense

budgets, they did it differently. The majority of the countries cut more on investments and planned armaments programs, but those with a relatively developed domestic defense industry preferred to cut on personnel and operational costs. At the end of the day, all these cuts were made in a very uncoordinated way based on national prerogatives rather than on a common approach. This was highly criticized by some European institutions that warned if this national focus continued to dominate under current financial circumstances at least two negative effects would follow in the near future—an even bigger capability gap and a delay in development of the EDTB (European Parliament, 2011).

In a period of austerity and decreased funding for procurement and especially for significant programs, one would expect that the EU member states would try to use their scarce resources in a more collaborative and efficient fashion. Instead, with the exception of 2011, the armaments collaboration in Europe has been decreasing during the entire period 2008–2012 (Figure 10).

According to EDA estimates based on data collected for the period 2005–2012, the pMS spent on average 80% of defense procurement expenditure nationally (i.e., outside cooperative projects). However, the Commission makes two important remarks on the EDA's estimation. The first remark is based on the argument that "[t]his does not mean that these 80% are exclusively spent for equipment from national suppliers" (European Commission, 2013, p. 12). Indeed, there is a distinction between awards using national procedures and awards to national suppliers. The former do not exclude a cross-border competition by default. Still, this 80% happens outside the European framework, in an uncoordinated and in many cases non-transparent way, which is against the political commitment of the EU member states to work toward joint spending in a more coordinated and efficient way.

Thus, the question that pops up is whether one can claim that there is a European demand for defense goods and services at all? After more than a decade of political debate in Europe, the bulk of the defense procurements continues to be driven by national considerations, and this means not only that the most procurements are awarded under national rules or contracted to national suppliers only. This means, too, that the decisions

to initiate or cancel a long-term program are based on factors such as national security interests, nationally-specific allocation of resources for new armaments, protection of the domestic defense industry and employment, etc.

It may be really "too early to draw conclusions on the impact of the defense procurement directive" (European Commission, 2013, p. 14) as the EC claims based on the argument that the DPD's transposition process was accomplished by all member states a year and half after the deadline—in March 2013 instead of in August 2011. However, one can hardly notice any significant change in the established procurement behavior of the member states to award contracts to their national suppliers or at least to do defense procurement according to their national rules and preferences rather than on European-centric considerations.

The second remark of the Commission is that "defence companies might be reluctant to operate outside their home markets (in particular if this would imply to compete with established national champions)" (European Commission, 2013, pp. 15-16). This suggestion requires a bit more attention. One needs a credible answer to the question of if the European defense companies were really reluctant to operate outside their home markets, how they did survived in a condition of decreasing domestic defense expenditure. For this purpose, one needs to look at the market orientation of the biggest European arms-exporting countries.

2. Regional Trends of the Global Arms Trade and Market Orientation of the European Defense Export

As result of the 2008 financial crisis and following budget cuts, for the first time since 1998, the global defense expenditure fell in 2012. The total defense spending has accounted for $1,756 billion in 2012, which is 4% lower in real terms than 2011 (SIPRI, 2013a, p. 127). More importantly, there was a shift in the balance of the military spending in favor of the developing world. Since 2009, North America, western and central Europe, and central and southern Asia have been decreasing their military spending, and this trend continued in 2012. Sub-Saharan Africa, eastern Asia and Latin

America slowed down their growth rate in 2009–2012. At the same time, one can observe an accelerated growth rate in the Middle East and North Africa (see Figures 13 and 14).

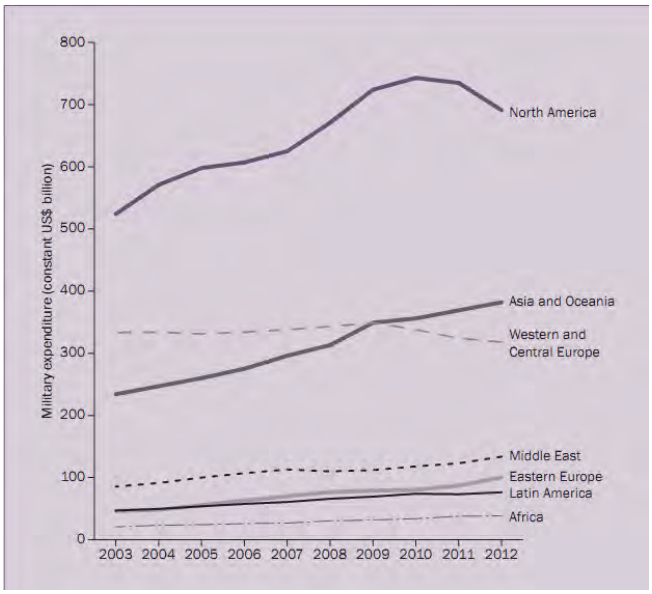


Figure 13. 2003-2012 Military Expenditure by Region (from SIPRI, 2013b, p. 4)

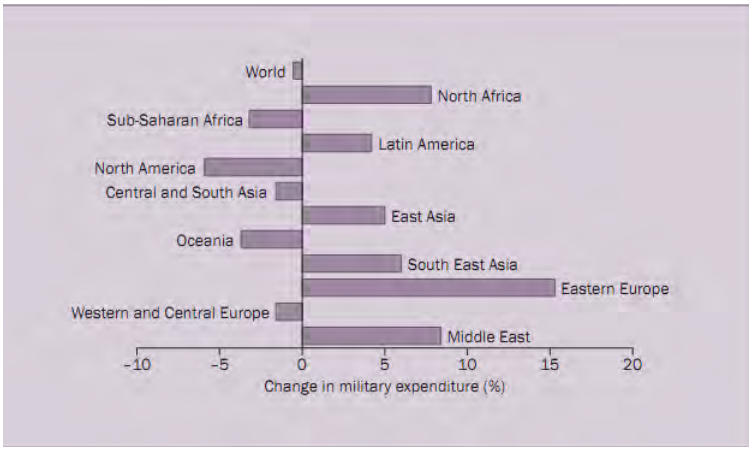


Figure 14. Changes in Military Expenditure by Region, 2011–2012 (from SIPRI, 2013b, p. 5)

Given these global trends and the shrinking European demand, what is the behavior of the European defense companies? While there is no common European strategic concept, neither among EU governments nor among industrial partners,

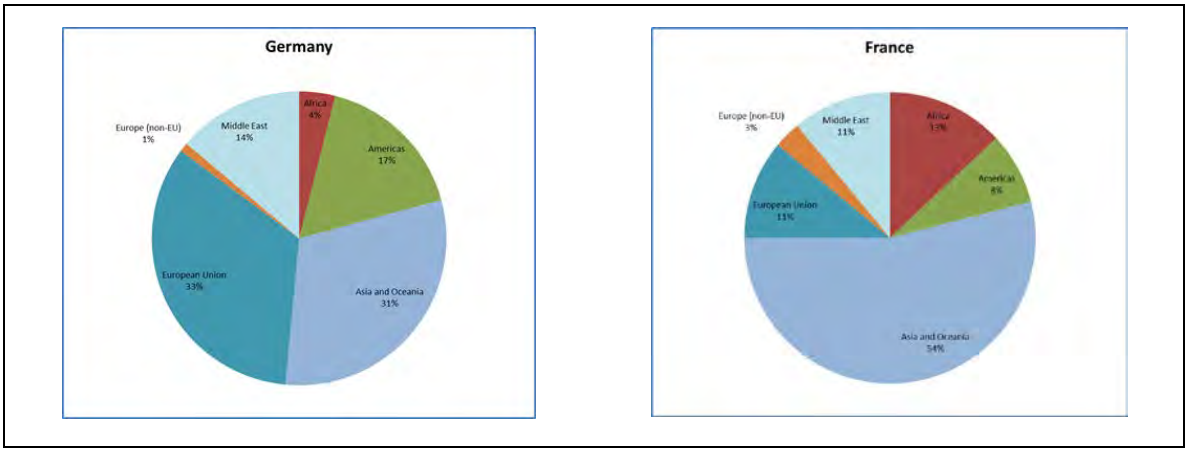
stagnation in Europe drives the domestic defense companies to focus on export markets outside the Union.

For 2008–2012 the five major EU arms-exporting member states include Germany, France, the United Kingdom, Spain and Italy; the first two are among the top five world's largest suppliers and last three are among the top 10 world's largest suppliers of major conventional weapons (see Figure 15).

With the exception of Germany, the other four major European arms-supplying countries exported their production during (SIPRI, 2013c) the 5-year period predominantly out of the Old Continent. But even the German defense companies accounted only about 1/3 of their entire export within the EU, as their sales in Asia and Oceania (in particularly southeastern and central Asia) were of almost equal amount.

The focus for market positioning of the French defense firms was primarily on Asia and Oceania, which absorbed more than the half of the entire French export for 2008–2012, with almost equal distribution of the remaining half of the export among the EU, Africa, Middle East, and to a lesser degree the Americas.

Not surprisingly, the Americas, Asia and Oceania, and the Middle East remain the UK's most important regional markets, and together these markets absorbed 86% of the British arms export.



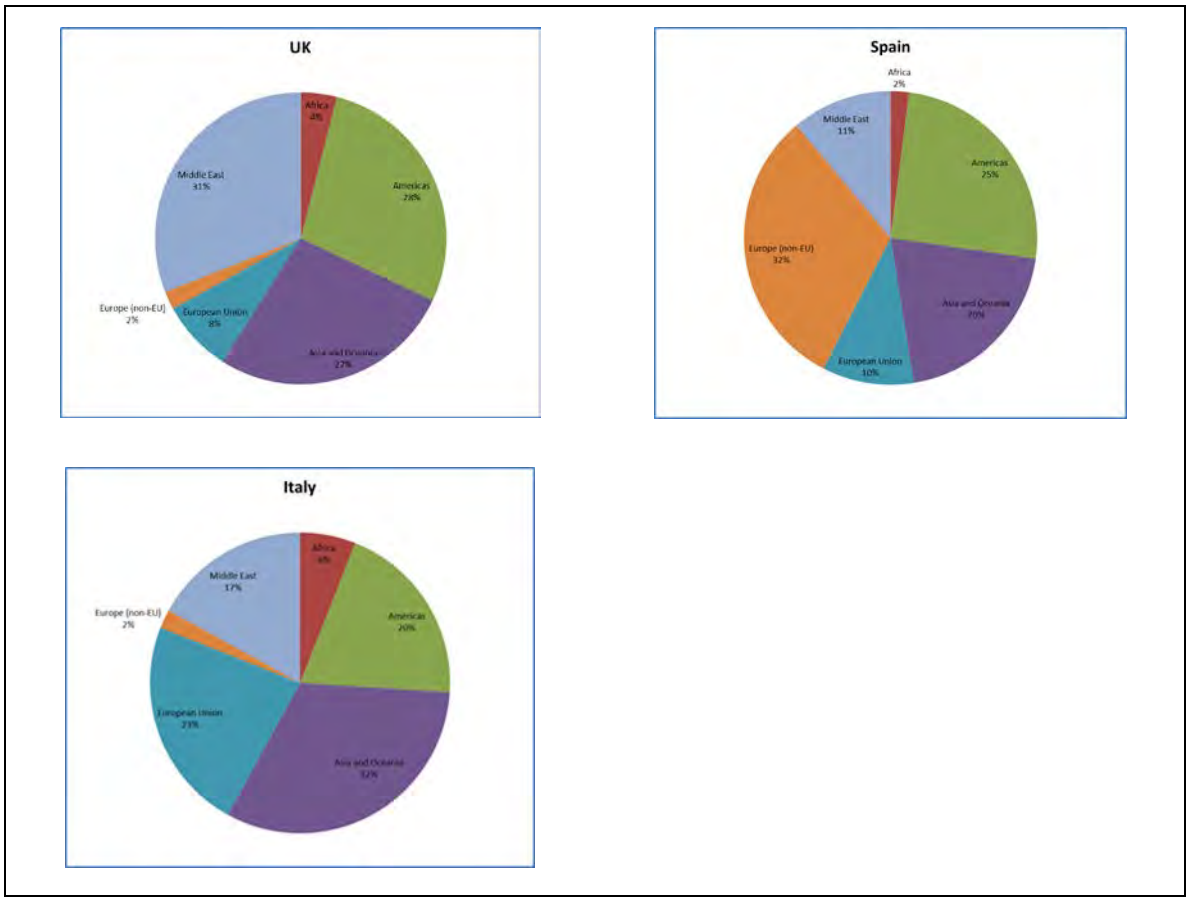


Figure 15. 2008–2012 Main Destinations of the Top 5 European Suppliers (after SIPRI, 2013a, p. 246)

Given the trends for continuing the reduction of the procurement spending both at home and in the EU, the major European defense companies concentrate their efforts on the emerging markets. Not surprisingly, the world's top five arms importers are concentrated in the aforementioned regions—the Middle East and Asia (see Figure 16). The export orientation is a matter of survival for many European companies.

Figure 16. Market Share of Top 5 Arms Importers (from SIPRI, 2013c)

The contraction of the defense markets with cuts and delays in military expenditures (both in the EU and the United States) pushes the European companies toward rationalization, and the recent effort for an EADS-BAE Systems merger illustrates a new type of mergers and acquisition after the first wave in the late 1990s. The idea of merging the two companies was a reaction to the aforementioned constraints and would have turned the new company not only into a top bidder for future European armaments programs, but also into the world's leading aerospace company (Darnis, 2013).

However, this failure gives observers food for thought for some future merger scenarios, where political considerations may be expected to play a dominant role, especially in the case of France and Italy, who are still following a state-centric defense industrial model.

Some important European political factors have already expressed their concerns about the export-oriented strategy of the defense industry. Since the reliance on export-oriented growth comes as a dominant reaction of most European defense firms to the crisis, the main issues of the sustainability of such a strategy will sooner or later emerge. Two possible risks may arise from this export-oriented strategy of the European defense industry. First, European firms risk being crowded out of sectors where there is too much European and international competition, driving down income and eventually leading to externally-induced consolidation of supply. Secondly, the global oversupply may increase the bargaining power of buying states, which may additionally require transfer

of know-how (including intellectual property rights to sign a deal. If European firms rely too much on export strategies, important IPR may be lost. This could have important political, strategic, and economic consequences for Europe, especially if the buyers are rising powers like Brazil, Russia, China, or India (European Parliament, 2011).

VII. CONCLUSIONS

The tremendous change of the strategic environment in Europe during the 1990s that followed the dissolution of the Soviet Union and the disappearance of the communist threat made both the EU countries and the United States face the necessity of reducing their huge armed forces. The question about the future of the defense industries on both sides of the Atlantic has been put on the agenda. And not surprisingly, when the demand for armaments is expected to shrink, the supply side of the market needs to change, too.

Compared to the U.S. model, Europeans initiated the defense industrial transformation later, did the changes much slower and more gradually. There are some credible explanations why the EU countries chose to follow this model:

- The reform of the U.S. defense industry went with a faster pace, mainly because it was predominantly privately-owned. Many companies closed down their excess production facilities and eliminated hundreds of thousands of jobs. This was not the case in Europe, where most defense firms were state-owned and the governments tried to preserve jobs as much as possible. The downsizing of excess industrial capacities happened gradually, accompanied by the efforts of finding alternative employment.

- The consolidation of the U.S. defense industry was triggered by the paradigm shift in the character and conduct of warfare. IT-based RMA and the emerging concept of network-centric warfare fundamentally changed the way the U.S. military does its business, and thus a new generation of armaments was needed. All military systems had to be integrated into a complex operational network. The European countries did not follow the American model because they were initially skeptical about the success of the RMA approach and most importantly because RMA would require a significant amount of money that many European countries would prefer to spend for other policies. As a result, the European defense industry fell behind technologically and the then existing capability gap between the European and U.S. companies began to grow.

- Different national considerations and strategies for restructuring of the defense industry among the European countries played a negative role and contributed to lagging behind the United States. Unlike other branches of the economy where the high level of integration was a distinctive feature of the so-called internal market, the EU member states favored their biggest national defense champions and limited the intercommunity defense industrial collaboration.

All this led to the first major conclusion that Europe, due to the delayed start and the relatively conservative approach to the defense transformation, lagged behind its closest ally, the United States, during the 1990s. This, along with other non-economic interests of the EU member states that came into play affected negatively the European defense industry, and eventually it began to lose its competitiveness in comparison to the U.S. arms manufacturers.

By the end of the 1990s, it became clear that the increasing European reliance on the U.S. defense capabilities even for conducting modest military operations drove the European allies to reconsider their approach to the domestic defense industry. A number of European collaboration programs have been launched. However, these programs have been later highly criticized for their economic inefficiencies and exclusiveness. They did not offer a comprehensive European approach to the problem, but rather ad-hoc collaborations between the most developed defense industrial countries.

To conclude, even though during the late 1900s–early 2000s the EU member states realized that they were not able to maintain and develop the full spectrum of defense capabilities (due to the increasing prices of the modern weapon systems and platforms and decreasing defense budgets), they approached the problem by collaborating with other particular member states rather than by searching for an EU-wide approach.

After 2000 the European institutions (mostly but not only the European Commission) opened an EU-wide debate that led later to the adoption of a series of important community documents, including a new defense procurement directive. The main goal of these efforts was to consolidate the European demand on defense equipment and to lay down the basis for a competitive European defense equipment market. The new directive introduced a number of innovative provisions that aimed to address specifically the defense-specific interests of the member states. This new community law was expected to lead to the gradual integration of the member states' defense markets and to increase the competence, competiveness, and efficiency of the European defense industry.

The current study showed that despite the ambition of the European Commission to encourage the member states to organize their defense procurement within the European law, a lot of contracts remained out of the scope of the new defense procurement directive and the internal market rules. Many contracts such as government-to-government arms sales, cooperative programs, or contracts awarded to third countries remain outside the regulations of EU law. This does not mean that these contracts do not contribute to the development of EDEM and the European defense industry at all. It means that a significant portion of the defense expenditure would be defined by national prerogatives rather than by EU internal market principles.

My third conclusion is that the scope of the new defense procurement legislation (a secondary law) is limited to a significant degree by the primary law and the fragile political consensus among the member states achieved with the Lisbon Treaty. Despite some innovations that the last Treaty introduced in the area of defense, the member states agreed to retain the provision (Article 346 TFEU, ex Article 296 TEC) that would allow them to derogate the EU law, under some specific circumstances, when doing defense procurement.

My fourth conclusion based on data interpretation and analysis is that despite the political declarations and commitments by all EU member states to move fast to a deeper integration of their national defense industries, the European defense equipment market remains highly fragmented. The evidence found shows the highly uneven distribution of the defense expenditure (and procurement and R&D spending in particular) not only in absolute values, but as a percentage of the GDP, too. A few member states—Germany, France, the UK, Italy, and Spain—concentrated both the demand and supply. There is a clear geographic regionalization of the defense market in Europe, as the eastern European (post-communist) EU member states (probably with the exception of Poland) remain outside of the integration process. Despite the significant inherited military-industrial complex from the near past, most of these countries do not have any significant defense companies able to compete in Europe as prime contractors. However, some of them have successfully joined the supply chain of the bigger western European defense companies.

My last conclusion is that after the 2008 financial crisis and the severe defense budget cuts across Europe, even the biggest arms-exporting countries orientate their export towards markets outside the EU. This could possibly be a lifesaving decision for some particular defense industries, but it does not offer any long-term decision to the existing defense market fragmentation.

If the current model for achieving a more competitive European defense equipment market and a more effective and competitive defense industry, what could be a possible solution? As the current analysis shows, it is hardly possible to achieve both high effectiveness of the defense companies and high level of competitiveness of the defense markets at the same time. The main reason for the defense market deficiencies lie in the nature of the defense goods. A possible solution of this dilemma could be the development of a transatlantic defense equipment market, where European and North American companies could be able both to cooperate and compete more freely, rather than building a wall of export restrictions between the two closest regions. In turn, a transatlantic defense market could drive further consolidation of European defense companies and make some of them leaders on the global defense market. This may lead to the loss of the so-called ‘European identity’ of the EU defense companies, but it could possibly help to increase both the effectiveness of the suppliers and the competitiveness of the European defense market.

APPENDIX

Table 1A. EU Macroeconomic data (after EDA, 2013a, pp. 6–10)

EU Macroeconomic Data GDP, Overall Government Expenditure, Total Defense Expenditure						
Year	GDP	Overall Government Expenditure	Overall Government Expenditure as % of GDP	Total Defense Expenditure	Defense Expenditure as % GDP	% Change in Defense Expenditure
2006	€ 12,178	€ 5,707	46.86%	€ 218	1.79%	-
2007	€ 12,650	€ 5,790	45.77%	€ 214	1.69%	-1.83%
2008	€ 12,835	€ 5,992	46.68%	€ 211	1.64%	-1.40%
2009	€ 12,304	€ 6,222	50.57%	€ 206	1.67%	-2.37%
2010	€ 12,603	€ 6,276	49.80%	€ 201	1.59%	-2.43%
2011	€ 12,704	€ 6,216	48.93%	€ 195	1.53%	-2.99%
2012	€ 12,653	€ 6,232	49.25%	€ 195	1.54%	0.00%

Table 2A. EU Defense Expenditure Breakdown (after EDA, 2013a, p. 12)

Defense Expenditure Breakdown - Real Comparison				
	Investment	Personnel	Operation & Maintenance	Other (Incl. Infrastucture)
2006	€ 41.90	€ 119.10	€ 46.70	€ 8.80
2007	€ 43.90	€ 111.10	€ 49.10	€ 9.80
2008	€ 43.90	€ 112.10	€ 45.20	€ 9.30
2009	€ 43.50	€ 104.50	€ 46.80	€ 11.30
2010	€ 44.50	€ 102.40	€ 45.30	€ 8.70
2011	€ 37.80	€ 100.90	€ 46.30	€ 10.20
2012	€ 39.00	€ 94.70	€ 44.80	€ 10.00

Table 3A. EU Defense Investment Breakdown (after EDA, 2013a, p. 13)

Defense Investment Breakdown Defense Equipment Procurement and R&D/ R&T as % of the Total Defense Expenditure						
	Defense Equipment	Defense Equipment Change in %	R&D (incl. R&T)	R&D (incl. R&T) Change in %	Other Defense Expenditure	Other Defense Expenditure Change in %
2006	14.50%	-	4.90%	-	80.60%	-
2007	15.80%	1.30%	4.70%	-0.20%	79.50%	-1.10%
2008	16.50%	0.70%	4.30%	-0.40%	79.10%	-0.40%
2009	16.80%	0.30%	4.30%	0.00%	78.90%	-0.20%
2010	17.70%	0.90%	4.40%	0.10%	77.90%	-1.00%
2011	15.30%	-2.40%	4.10%	-0.30%	80.60%	2.70%
2012	18.00%	2.70%	2.50%	-1.60%	79.40%	-1.20%
Average (2006 - 2012)	16.37%	0.58%	4.17%	-0.40%	79.43%	-0.20%

Table 4A. Defense Equipment Procurement Expenditure by Country (after EDA, 2013b)

Defense Equipment Procurement Expenditure Millions of Euros								
	2005	2006	2007	2008	2009	2010	2011	2012
Austria	184.0	80.0	491.0	352.0	287.0	310.0	289.0	247.0
Belgium	222.7	209.0	182.0	348.2	333.0	256.0	254.0	161.0
Bulgaria	-	74.8	172.9	169.9	92.3	96.9	40.0	22.0
Cypros	47.5	7.0	4.1	17.5	40.0	72.0	64.0	35.0
Czech Republic	213.3	250.0	185.7	160.5	435.0	176.0	287.0	260.0
Estonia	20.0	41.0	44.0	65.0	68.0	57.0	64.0	100.0
Finland	538.8	566.0	584.0	655.4	736.0	698.0	457.0	623.0
France	5,618.0	6,321.0	6,448.0	6,258.0	6,871.0	8,272.0	7,534.0	11,108.0
Germany	3,445.0	3,697.0	3,592.0	5,323.2	5,198.0	5,658.0	5,804.0	5,476.0
Greece	1,400.0	1,500.0	1,700.0	2,129.0	2,128.0	1,138.0	293.0	320.0
Hungary	105.5	98.0	156.0	192.4	135.0	123.0	106.0	60.0
Ireland	920.0	922.0	978.0	1,076.7	988.0	911.0	881.0	900.0
Italy	2,118.0	2,099.0	2,595.0	3,050.1	2,405.0	3,077.0	2,369.0	1,736.0
Latvia	14.3	29.4	26.2	55.2	11.0	24.0	21.0	19.0
Lithuania	37.4	58.0	72.2	65.8	49.0	26.0	29.0	30.0
Luxemburg	-	-	-	-	-	-	71.1	42.4
Malta	-	-	-	-	-	-	0.3	0.3
Netherlands	1,215.0	1,291.0	1,521.0	1,409.0	1,449.0	1,375.0	1,124.0	1,081.0
Poland	633.4	881.0	1,294.0	845.0	1,007.0	1,435.0	1,418.0	1,399.0
Portugal	223.8	151.5	202.9	340.0	355.0	289.0	297.0	255.0
Romania	-	422.0	249.0	344.0	149.0	119.0	128.0	68.0
Slovakia	94.9	113.0	132.8	143.0	138.0	84.0	55.0	71.0
Slovenia	39.1	94.7	54.6	41.8	49.0	105.0	27.0	5.0
Spain	2,165.0	2,343.0	2,367.0	2,536.0	1,979.0	1,265.0	605.0	2,423.0
Sweden	1,217.0	1,158.0	1,290.0	901.0	789.0	1,036.0	966.0	1,045.0
United Kingdom	6,699.0	7,513.0	8,761.0	7,710.0	7,681.0	8,443.0	6,802.0	7,510.0

Table 5A. Armaments Collaboration in the EU (after EDA, 2013a, p. 20)

Armaments Collaboration in Europe			
	National Defense Equipment Procurement	European Collaborative Defense Equipment Procurement	Other Collaborative Defense Equipment Procurement
2006	77.10%	20.90%	2.00%
2007	78.80%	18.90%	2.30%
2008	75.80%	21.20%	3.00%
2009	74.70%	22.00%	3.30%
2010	77.60%	21.20%	1.20%
2011	72.90%	25.10%	2.00%
2012	82.40%	16.80%	0.80%

Table 6A. EU Defense R&T in absolute values (after EDA, 2013a, p. 21)

Defense R&T in Billion Euro				
	National Defense R&T	European Defense R&T	Other Defense R&T	Total Defense R&T
2006	€ 2.27	€ 0.25	€ 0.13	€ 2.66
2007	€ 2.16	€ 0.33	€ 0.05	€ 2.54
2008	€ 2.03	€ 0.41	€ 0.04	€ 2.48
2009	€ 1.94	€ 0.29	€ 0.03	€ 2.26
2010	€ 1.81	€ 0.25	€ 0.02	€ 2.08
2011	€ 1.84	€ 0.26	€ 0.05	€ 2.15
2012	€ 1.73	€ 0.14	€ 0.07	€ 1.93

Table 7A. EU Defense R&T by categories (after EDA, 2013a, p. 22)

Defense R&T				
	National Defense R&T	European Defense R&T	Other Defense R&T	Total Defense R&T
2006	85.50%	9.60%	4.90%	100.00%
2007	85.10%	13.10%	1.80%	100.00%
2008	81.80%	16.60%	1.60%	100.00%
2009	85.70%	12.80%	1.40%	100.00%
2010	87.30%	11.80%	0.90%	100.00%
2011	85.60%	12.10%	2.30%	100.00%
2012	89.30%	7.20%	3.50%	100.00%

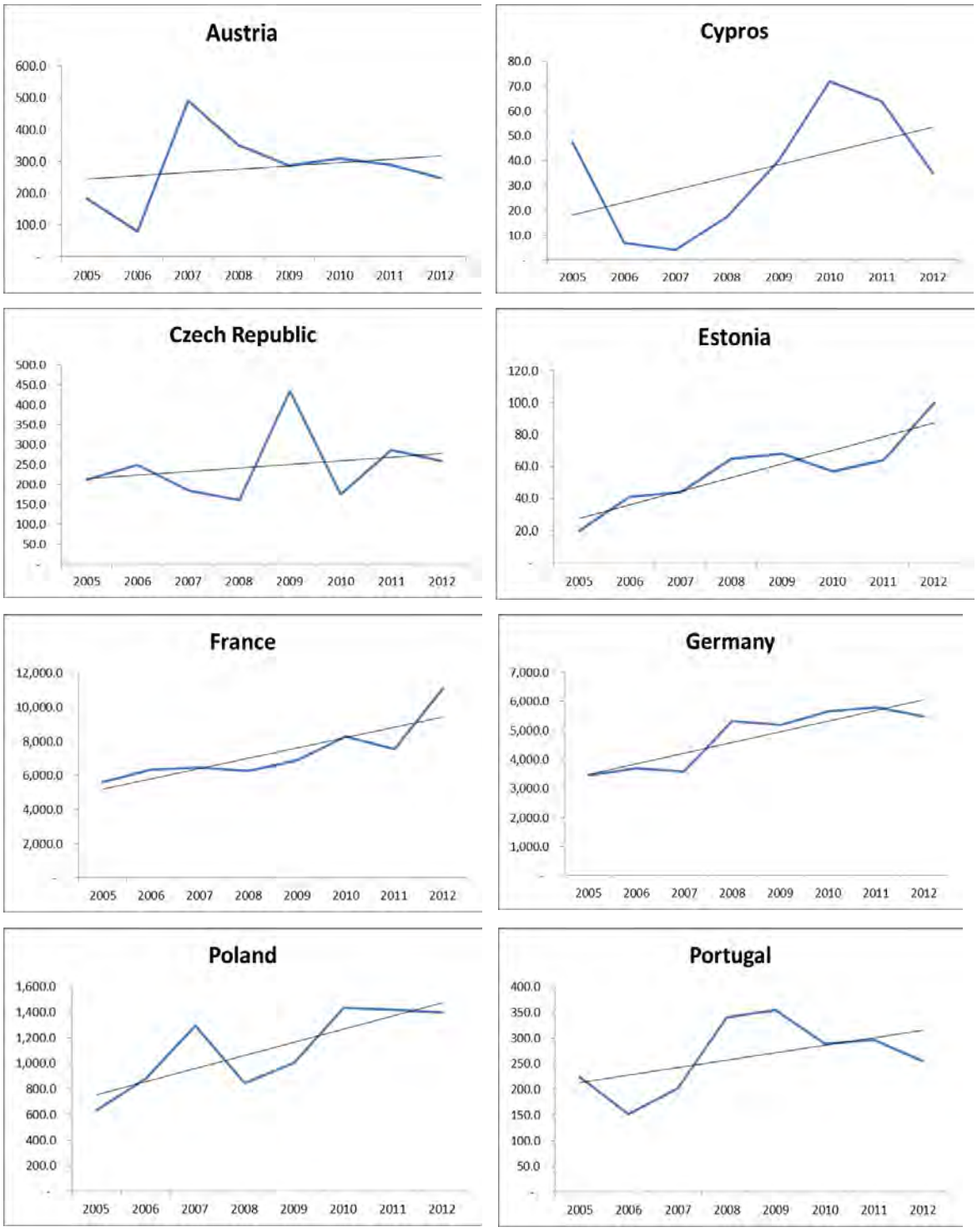


Figure 17. EU member states tend to increase their procurement expenditure

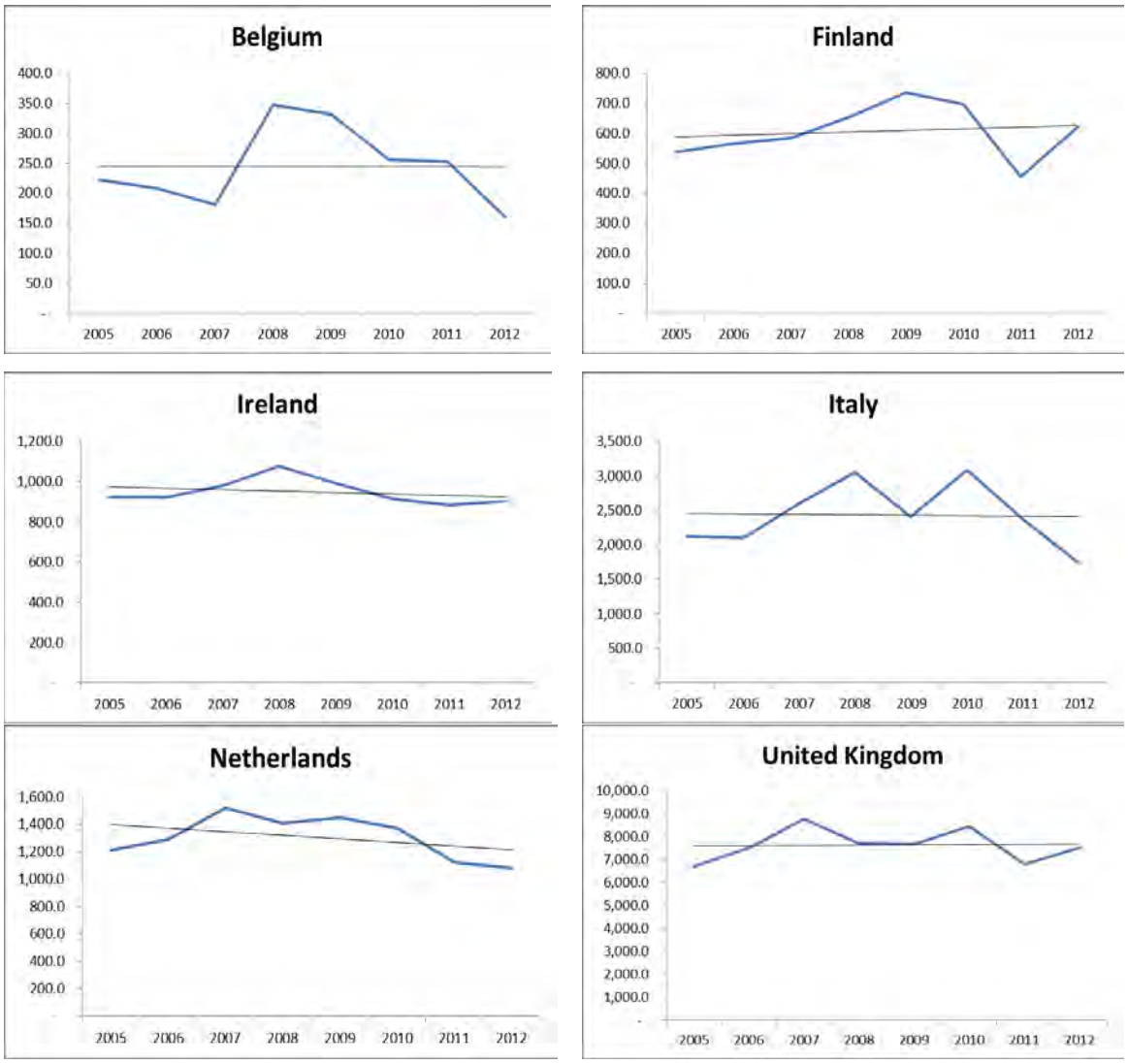
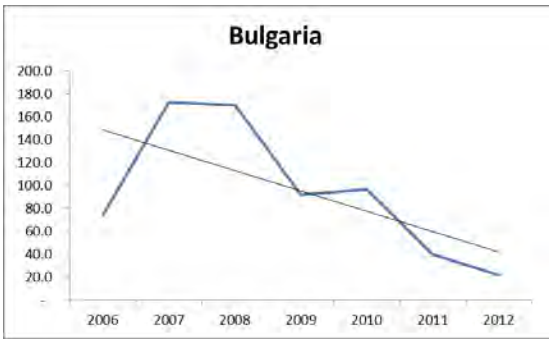


Figure 18. EU member states upward trend tend to maintain relatively constant level of procurement expenditure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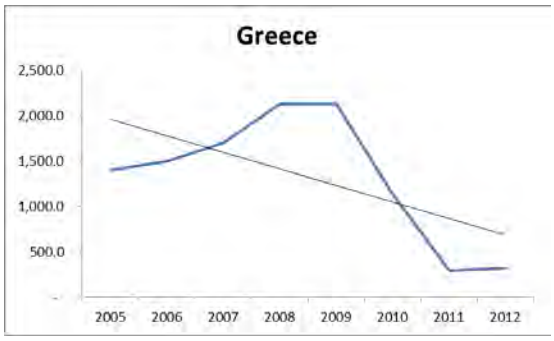
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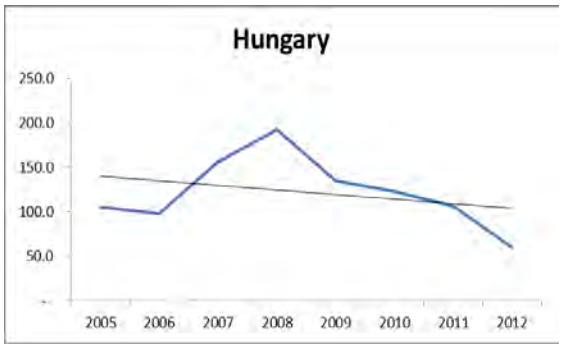
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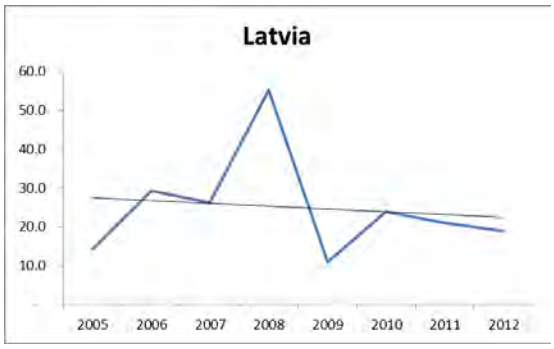
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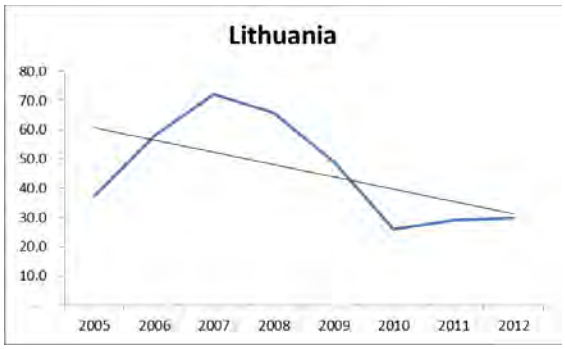
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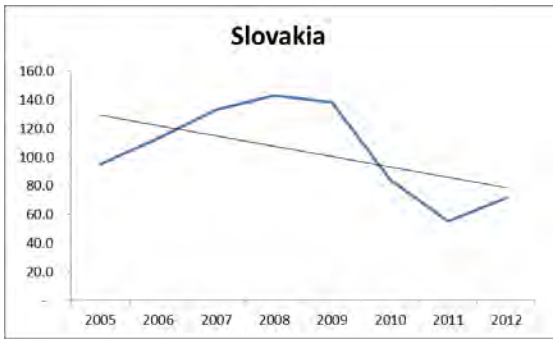
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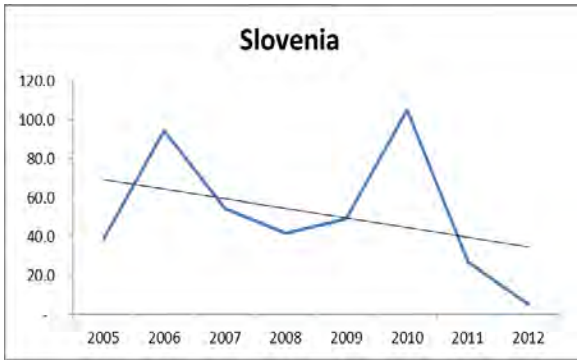
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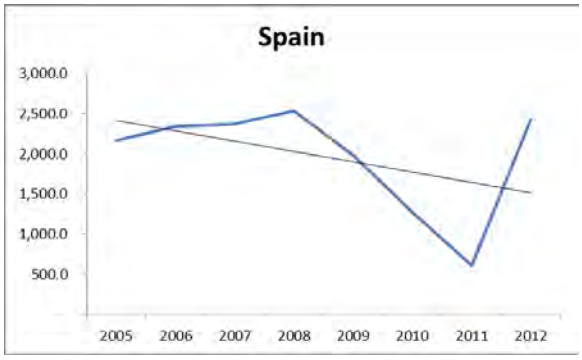
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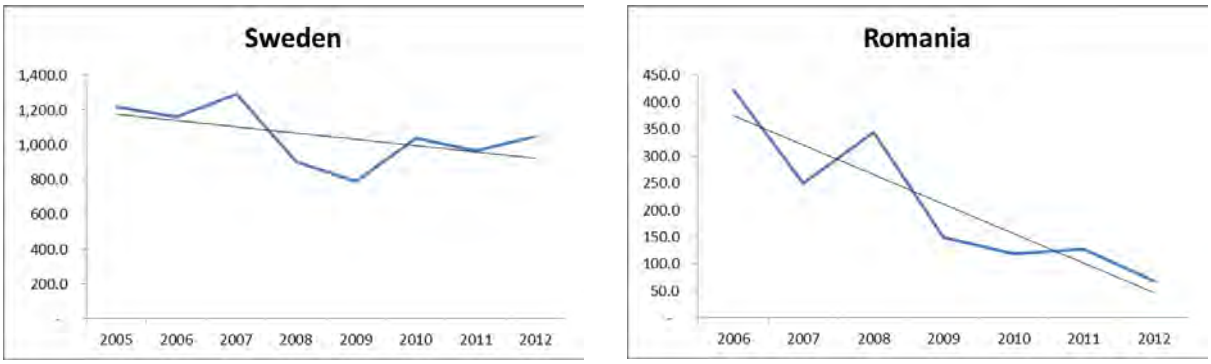

Figure 19. Countries tend to significant cuts in defense procurement

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LIST OF REFERENCES

Agapos, A. M. (1971). Competition in the defense industry: An economic paradox. *Journal of Economic Issues, 5*(2), 41–55.

Bialos, J. F. (2009). *Fortress & Icebergs: The evolution of the Transatlantic defense market and the implication for U.S. national security policy* (Vol. I). Washington, D.C.: The John Hopkins University and the U.S. Department of Defense.

Bitzinger, R. (2009). European defense industry in the 21st century: Challenges and responses. In R. (. Bitzinger, *The modern defense industry: Political, economic, and technological issues* (pp. 175–195). Santa Barbara, California: Praeger Security International/ ABC-CLIO.

Cevasco. (2009). Export controls and their relationships to national defense industries. In R. (. Bitzinger, *The modern defense industry: Political, economic and technological issues* (pp. 243–256). Santa Barbara, California: Praeger Security International/ ABC-CLIO.

Darnis, J. (2013). *The European defence industry's future: How European?* Jacques Delors Institute. Paris: Notre Europe - Jacques Delors Institute. Retrieved April 12, 2015, from http://www.institutdelors.eu/media/europeandefenceindustry-darnis-ne-jdi-feb13.pdf?pdf=ok

Directorate General Internal Market and Services. (2010a). *Guidance Note on Field of Application.* Retrieved April 14, 2015, from European Commission/ Defence Procurement: http://ec.europa.eu/internal_market/publicprocurement/docs/defence/guide-scope_en.pdf

Directorate General Internal Market and Services. (2010b). *Guidance Note on Security of Supply.* Retrieved April 14, 2015, from European Commission: http://ec.europa.eu/internal_market/publicprocurement/docs/defence/guide-sos_en.pdf

Directorate General Internal Market and Services. (2010c). *Guidance Note on Security of Information.* Retrieved April 14, 2015, from European Commission/ Defense Procurement: http://ec.europa.eu/internal_market/publicprocurement/docs/defence/guide-soi_en.pdf

Directorate General Internal Market and Services. (2010d). *Guidance Note on Subcontracting.* Retrieved April 14, 2015, from European Commission/ Defence Procurement: http://ec.europa.eu/internal_market/publicprocurement/docs/defence/guide-subcontracting_en.pdf

Directorate General Internal Market and Services. (2010e). *Guidance Note on Research and Development.* Retrieved April 14, 2015, from European Commission/ Defence Procurement: http://ec.europa.eu/internal_market/publicprocurement/docs/defence/guide-research_en.pdf

Directorate General Internal Market and Services. (2010f). *Guidance Note on Defence- and Security-Specific Exclusions.* Retrieved from European Commission: http://ec.europa.eu/internal_market/publicprocurement/docs/defence/guide-exclusions_en.pdf

Directorate General Internal Market and Services. (2010g). *Guidance Note on Offsets.* Retrieved from European Commission: http://ec.europa.eu/internal_market/publicprocurement/docs/defence/guide-offsets_en.pdf

Dunne, J. (2009). Developments in the global arms industry from the end of the Cold war to the mid-2000s. In R. (. Bitzinger, *The modern defense industry: Political, economic, and technological issies* (pp. 13–37). Santa Barbara, California: Praeger Security International/ ABC-CLIO.

EDA. (2013a). *Defence Data 2012.* Retrieved from European Defence Agency: http://www.eda.europa.eu/docs/default-source/eda-publications/defence-data-booklet-2012-web

EDA. (2013b). *Defence Data Portal*. Retrieved from European Defence Agency: http://www.eda.europa.eu/info-hub/defence-data-portal

Eriksson, E. A. (2007 , July 12). Study on the effects of offsets on the Development of a European Defence Industry and Market (Final Report 06-DIM-022). https://www.eda.europa.eu/docs/documents/EDA_06-DIM-022_Study_on_the_effects_of_offsets_on_the_Development_of_a_European_Defence_Industry_and_Market_1.

EU Institute for Security Studies. (1998, December 4). *Joint Declaration on the European Defence.* Retrieved April 12, 2015, from The Council of the European Union: http://www.consilium.europa.eu/uedocs/cmsUpload/French-British%20Summit%20Declaration,%20Saint-Malo,%201998%20-%20EN.pdf

European Commission. (2003, March 11). COM(2003) 113 final. *Towards an EU Defence Equipment Policy*. Brussels: Author.

European Commission. (2004, September 23). COM(2004) 608 final. *Green Paper on Defence Procurement*. Brussels: Author.

European Commission. (2005, December 6). COM(2005) 626 final. *Communication from the Commission to the Council and the European Parliament on the results of the consultation launched by the Green Paper on Defence Procurement and the future Commission initiatives*. Brussels: Author.

European Commission. (2006, 12 7). COM(2006) 779 final. *Interpretative Communication on the application of Article 296 of the Treaty in the field of defence procurement*. Brussels: Author.

European Commission. (2007, 12 5). Annex to the Proposal for a Directive - Impact assessment. *CSW Document Annex to the Proposal for a Directive of the European Parliament and the Council on the coordination of procedures for the award of certain public works contracts, public supply contracts and public service contracts in the fields of defence* . Brussels: Author. Retrieved from http://ec.europa.eu/internal_market/publicprocurement/docs/defence/impact_assessment_en.pdf

European Commission. (2007b, 12 5). COM(2007) 764 final. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions A strategy for a stronger and more competitive European defence industry*. Brussels: Author.

European Commission. (2013). *Commission Staff Working Document (SWD(2013) 279 final) accompanying the Communication on the European Defence and Security Sector (COM(2013) 542 final).* Retrieved from European Commission: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013SC0279&from=EN

European Parliament. (2011). *Study on the impact of the financial crisis on European defence.* Brussels: European Parliament.

European Parliament. (2014, 4). *Sources and scope of European Union law.* Retrieved April 14, 2015, from European Parliament: http://www.europarl.europa.eu/aboutparliament/en/displayFtu.html?ftuId=FTU_1.2.1.html

European Parliament and the Council of the European Union. (2009, 8 20). Directive 2009/81/EC. *Official Journal of the European Union*, pp. 76–136.

European Union. (2012, 10 26). Treaty on the Functioning of the European Union. *Official Journal of the European Union*, pp. 47–199. doi:10.3000/1977091X.C_2012.326.eng

Guay, T., & Callum, R. (2002). The transformation and future of Europe's defense industry. *International Affairs, 78*(4), 757–776.

Hartley, K. (2003). The future of European defence policy: An economic perspective. *Defence and Peace Economics, 14*(2), 107–115.

Hartley, K. (2008). Collaboration and European defence industrial policy. *Defence and Peace Economics, 19*(4), 303–315.

Howorth, J. (2001). European defence and the changing politics of the European Union: Hanging together or hanging separately? *Journal of Common Market Studies, 39*(4), 765–789.

Iersel, & Hrusecka. (2013). Need for a European defence industry. *Military Technology, 37*(1), 97–101.

James, A. (2005). European military capabilities, the defense industry and the future shape of armaments co-operation. *Defense & Security Analysis, 21*(1), 5–19.

Jones, S. (2006). The rise of a European defense. *Political Science Quarterly, 121*(2), 241–267.

Kaplow, L., & Shavell, S. (1999, 2). *Economic Analysis of Law.* Retrieved from Harvard Law School: http://www.law.harvard.edu/programs/olin_center/papers/pdf/251.pdf

Kenny, B. (2006). European armaments collaboration and integration. *Leadership & Organizational Development Journal, 27*(6), 484–500.

Kollias, C., Manolas, G., & Paleologou, S. (2004). Defence expenditure and economic growth in the European Union: A causality analysis. *Journal of Policy Modeling, 26*(5), 553–569.

Nackman, M. J. (2011). A Critical Examination of Offsets in International Defense Procurements: Policy Options for the United States. *Public Contract Law Journal, 40*(2).

NSPA. (n.d.). *What is NSPA.* Retrieved from NSPA: http://www.nspa.nato.int/en/organization/NSPA/nspa.htm

Pugel, T. A. (2012). *International economics.* New York: McGraw-Hill Irwin.

Randazzo, V. (2014, 7). *Article 346 and the qualified application of EU law to defence.* Retrieved April 14, 2015, from European Union Institute for Security Studies: http://www.iss.europa.eu/uploads/media/Brief_22_Article_346.pdf

Schmitt, B. (2005). *Towards a European defence equipment market. The Green Paper on defence procurement.* Paris: Institute for Security Studies.

SIPRI. (2013a). *SIPRI Yearbook 2013: Armaments, Disarmament and International Security.* Oxford: Oxford University Press.

SIPRI. (2013b). *SIPRI Fact Sheet: Trends in World Military Expenditure, 2012.* Retrieved from SIPRI: http://books.sipri.org/files/FS/SIPRIFS1304.pdf

SIPRI. (2013c). *Market Share of Top 5 Arms Importers.png*. Retrieved from Stockholm International Peace Research Institute: http://www.sipri.org/research/armaments/transfers/measuring/at-images/Market%20share%20of%20top%205%20arms%20importers.png/view

SIPRI. (2014). *SIPRI Yearbook 2014: Armaments, Disarmament and International Security.* Oxford: Oxford University Press.

Teixeira, N. S., & Pinto, A. S. (2014). *European Defence in times of austerity - the case of Southern Europe (RSCAS Policy Paper 2014/08).* Retrieved from European University Insttute: http://cadmus.eui.eu/bitstream/handle/1814/32035/RSCAS_PP_TEX_2014_08.pdf?sequence=1

Trybus, M. (2014). *Buying Defence and Security in Europe: The EU Defence and Security Procurement Directive in Context.* Cambridge: Cambridge University Press.

UK Ministry of Defence. (2012, December 12). *Letter of Intent: Restructuring the European defence industry.* Retrieved April 12, 2015, from Gov.UK (The Offcial website of the Government of the United Kingdom): https://www.gov.uk/letter-of-intent-restructuring-the-european-defence-industry

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